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The College and the Graduate School¹

EVER in haste, never able to take things naturally and with deliberation, the neighbors wondered at the man, and when asked why he was always in a hurry he replied that he had spent his life in trying to catch up the quarter of an hour he had lost in early youth. That man is the American system of Education. It begins too late, and, for fear of impairing the child's physical development, goes too slowly in all the early years. It cultivates thereby the habit of taking study leisurely; and then it tries to catch up by forcing the pace in the preparatory or high school, until, not far from the age when the youth goes to a European university, it lands him on our college steps with his secondary education incomplete.

The result is that the earlier studies in college are not of university grade, but have more nearly a secondary character. The freshman, and commonly the sophomore as well, attends classes, learns lessons, performs set tasks, and in a scholarly way does, as a rule, no more. He listens to lectures which, to be effective, must be backed up by quizzes, and are usually in his eyes important only until the course is over and the examination passed. In the junior and senior years also the same methods have been hitherto too much followed. There have been too many courses that, in the mind of the ordinary undergraduate, signified chiefly a means of scoring credits towards a degree; and this cannot fail to be to a large extent the case so long as the degree is conferred solely for passing a certain number of courses, even if these are not chosen at random but within fields prescribed or elected.

Nor in the graduate school, which it has been the fashion with some people to call distinctively "the university," have the same defective methods been outgrown. The degree of master of arts is habitually earned by the completion of a

¹Address delivered at The Annual Meeting of the Association of American Universities, Washington, D. C., November 11, 1927.

fixed number of courses, properly grouped, no doubt, and sometimes sustained by a thesis of the kind often required of undergraduates aspiring for honors. Even the candidate for the doctorate of philosophy is by no means wholly exempt from the need of passing courses. On the contrary, by some rule, at some time or other after graduating from college, he is usually required to score credits in this way.

That young people in America should be ready for college as well equipped in knowledge, and as fit for university work, as those of the same age in England, France and Germany is ardently to be desired; but it is not likely to be the case for a long time to come, and as officers of universities it is not under our control. We can, however, take steps to abandon the methods of secondary education as early in the college years as possible and substitute study of a university character. To be more definite, we can replace the passing of courses by the mastery of a subject, and change the purpose from fulfilling the requirements of an instructor to conscious self-education. The transformation is partly in methods, partly in spirit; but we know that, as in the case of structure and function, the spirit is shaped by the methods and the methods are evolved from the spirit.

No one proposes to give up the American course with its lectures, its more or less definitely assigned reading, its quizzes in the earlier, its reports or theses in the later years, and its final examination. The object is not to abandon it as a means, but as an end in itself; to measure education not by an accumulation of credits in courses, but by the result produced on the student's intellectual progress. The key to the matter lies in his attitude. The essential difference between secondary and university education may be said to consist in the contrast between set tasks, large or small, done because prescribed, and the conscious effort to learn a subject for oneself, using, of course, all the means provided, but keeping the subject, not the process, as the aim. In short, one might describe work of university grade as self-education under guidance. No doubt this result may be attained by diverse methods. One now being tried

by a number of colleges is that of making the mastery of a subject a tangible end. This is done by a general examination on the major field which transcends the ground covered by courses, and it appears to have had a distinctly stimulating effect on a considerable number of undergraduates.

Whatever the specific process adopted, the object is to give to college work distinctly a university character; gradually in the first year or two, thoroughly in the later classes. At their age, upper classmen, at least, are fully mature enough for self-education under guidance, and only harm results from treating them by methods which they should have outgrown. If we treat them as boys they will behave as such; but if we deal with them as men, who come to college with an intellectual purpose, most of them will in time rise to it.

American colleges have occupied an intermediate position—partly continuations of secondary schools, for the rest not exactly universities on the European standard—and we have tried to superpose upon them universities in the form of the graduate schools. If now the time has come to give to the college less of a secondary character, what is to become of the graduate school? One suggestion is that, instead of transforming the college, we should abolish it, transferring the secondary part to a junior college, or more properly a continuation high school, and the later part to the graduate school. This seems to me a mistake. The American college has qualities far too valuable to be lost. Moreover, it has taken such a hold on popular imagination that it could not easily be abandoned. Far better to improve it, seeking to make it all that it might be. Yet obviously, if the college is to do by appropriate methods work of university grade, part of the present function of the graduate school will have been performed before the students reach it, and it must build upon the foundation already laid. To receive young men, who have been accustomed to master subjects for themselves, and set them back to methods they have outgrown, would be futile. In both method and spirit the graduate school should be a place to go forward, not backward.

Any changes in the graduate schools must, no doubt, proceed slowly. For many years to come they will recruit students from colleges of the older type, untrained to the self-education of the university, and for these it will long be necessary to provide instruction in the traditional form; but they should not hold back those whose work has proceeded on larger lines. Speaking of the theses of candidates for a bachelor's degree with distinction, in one of our more progressive colleges a professor has remarked that several of them were as good as some that his department had accepted for the doctorate of philosophy, and one of them he would have approved for it without hesitation. If such men enter the graduate school, what is to be done with them? Clearly they would be exceptional cases, to be treated in an unusual way. But suppose there should be many cases of this kind; then the unusual way would become not infrequent. Undergraduate theses worthy of a doctorate will, no doubt, always be rare, but if the standard of our colleges is raised as much as we hope, there will be many graduates quite capable of pursuing advanced studies with less direct instruction and of going forward at once on the preparation for their theses. These men should come up for the doctorate in a shorter time than is now required and without going through all the forms now required. For them the graduate school should be a place not only of strictly university methods but of the more advanced of those methods—a place where scholars are to educate themselves, and learn the art of research, the professors helping them by guidance, advice and contact.

This would appear to be the form to which the graduate school should aspire. No one should be admitted to candidacy for a doctorate until he is qualified to pursue his education by his own efforts. Courses there should be in the sense of expositions of scholars' contributions to knowledge, but neither attendance on them nor examination thereon should be required, and the idea of credit for courses should be left as far behind as supervised study in a schoolroom.

College graduates of the kind described should obviously

need less time to obtain a doctorate than is ordinarily the case today. One or more years of the ground now covered in the graduate school would have been already traversed by such men; and this is all to the good, because at present both teaching and entering on a large field of investigation are begun too late. The restricted area of a thesis for the doctorate has not the same effect in stimulating original thought as a greater aspiration; and the foundations of such thought are laid young.

Even if this is the true conception of what a graduate school should be, it cannot for many years be its exclusive form. Yet it may be applied at once to those students who are competent to profit by it, and among these may be included all whose condition warrants their being accepted as candidates for the doctorate, either immediately on leaving college or after sufficient preparation in the school itself. Should we not do well to distinguish thoroughly between these two classes of students, treating them differently according to their educational needs?

Such a distinction would accentuate the true function of the graduate school and give it the character and atmosphere that it has only in part attained. The less advanced of these classes would be in its nature provisional, so far as aspirants for the doctorate are concerned; and with improvement in the colleges may be expected to become less numerous.

This brings us to the difficult question of the degree of master of arts, the more difficult because no difficulty is commonly recognized. At present the qualifications for that degree are not higher, and in many cases not so high, as for a bachelor's degree with distinction in our best colleges. The requirement, as already remarked, is the passing with a sufficient grade of a certain number of courses, and sometimes the writing of a thesis like that often demanded for distinction on graduation from college. Moreover, the course credits can usually be accumulated a little at a time over a number of years. Although the degree is conferred in the graduate school, the work is too often essentially of

college quality, and not of the most modern and progressive type.

The position is anomalous, because the master's degree has a wider commercial value than any other, since it is practically required for many appointments in public schools, and the credits toward it are considered for promotions therein.

Therefore universities must continue to confer it; but if it is to be used mainly for its value in schools it could perhaps be more closely adapted to its object, and should be more distinctly separated from the higher work of the graduate school. If, on the other hand, it is to be used as a stage in the education of college graduates whose work has not been such as to enable them to enter at once upon the advanced methods suggested as appropriate for candidates for the doctorate, then another class of questions arises.

It is well not to be theoretical or dogmatic. Perhaps both objects can be combined, but let us not assume this without a careful consideration of the needs of each.

Two things would seem to be clear. First, that the master's degree should not be a prerequisite to the doctor's degree for those men who are prepared for the kind of work on which it is conferred. *They should not be encouraged, they should not even be permitted, to take it after they have been accepted as candidates for the doctorate, because they should not be diverted from their appropriate work by other objects of a different character.* The second thing that seems to be clear is that the adoption of university methods by colleges must involve a distinct remodeling of some kind in the graduate school.

A. LAWRENCE LOWELL.

The Reorganization of English Post-Primary Education

ON FEBRUARY 1, 1924, the English Board of Education appointed a Consultative Committee on the Education of the Adolescent. The conditions which led to the appointment of this committee are described in the report in the following statement:

There has long been a trend towards some higher form of "elementary education"; the recent growth of central schools is at once the latest and the most arresting expression of that trend; and we believe that the time has now come at which it should move to its consummation.¹

The American reader must keep in mind the fact that the English educational system, like that of the other European countries, is a dual system. There is a common school open to the children of the lower classes of society and a separate school for the children of the upper classes. The common school has been traditionally a school limited to the teaching of rudimentary subjects. In recent years the demand on the part of the common people for an opportunity to participate in the higher intellectual life of the nation has found expression in many ways. The tendency toward enrichment of the curriculum and toward the extension of the period during which pupils may attend the common school has been so marked that the educational authorities have recognized the necessity of a careful re-canvas of the whole plan of education.

It will be recalled that in 1918, England adopted in the Fisher Bill one of the most progressive educational measures that has ever been enacted into law. That bill provided for the gradual extension of education under the guidance of the central, national board of education until it should provide in some form for every young person up to eighteen years of age. The full realization of the purposes of the Fisher Bill

¹"The Education of the Adolescent." His Majesty's Stationery Office, London, 1926, p. xix.

has been delayed because of lack of the funds necessary to organize the new forms of education contemplated in that bill. The spirit which prompted Parliament to adopt such a measure, however, is the spirit of democratic civilization which is steadily moving towards a complete equalization of opportunity for all classes.

The appointment of a Consultative Committee on the Education of the Adolescent, with directions to formulate a general program for the whole country, is a striking illustration of the advantage which a national educational system has over the completely decentralized, local type of educational organization which exists in the United States. Once, under the leadership of Charles W. Eliot, the educators of the United States organized a nation-wide movement to reconstruct and standardize American secondary education. The report of the American Committee of Ten comes to mind as one reads the report of the English Consultative Committee. One can hardly fail to be impressed with the importance of providing in some way for a deliberate national study of educational problems. Such a study seems to be somewhat easier under the English system, with its responsible central board of education, than it is under the American system, which must wait for action on the part of volunteer agencies.

The English Committee published in 1926 a report containing the results of its deliberations. It held, during the two and a half years of its active operations, hearings for the consideration of testimony from all types of witnesses. Ninety-five witnesses were heard. These were school principals, church and social leaders, teachers and students of the science of education. Altogether the full committee spent forty-six days in sessions. There were, in addition, sittings of subcommittees and sittings for the drafting of the report.

The committee comes to the conclusion that the first or primary stage of education reaches its natural terminus at the pupil's age of eleven plus. It is very impressive to find that on the other side of the Atlantic there has been reached,

through careful deliberation, a conclusion to which American educators have come by a process of trial and error. In the middle of the last century American schools were organized on the theory that the first stage of education ends when pupils are 14 years of age. We held tenaciously to this theory until we were compelled, by the expansion of the educational system, to distinguish the upper grades of the elementary school from the grades below and to organize the junior high school as a separate unit of the educational system. The junior high school of America resulted from spontaneous recognition in many parts of the United States that pupils of twelve years of age have passed out of the first stage of maturity and are in need of a new and broader type of training.

The English Committee has expressed the need for a new type of education for pupils who have reached the age of eleven plus in the following paragraphs:

"There is a tide which begins to rise in the veins of youth at the age of eleven or twelve. It is called by the name of adolescence. If that tide can be taken at the flood, and a new voyage begun in the strength and along the flow of its current, we think that it will 'move on to fortune.' We therefore propose that all children should be transferred, at the age of eleven or twelve, from the junior or primary school either to schools of the type now called secondary, or to schools (whether selective or non-selective) of the type which is now called central, or to senior and separate departments of existing elementary schools. Transplanted to new ground, and set in a new environment, which should be adjusted, as far as possible, to the interests and abilities of each range and variety, we believe that they will thrive to a new height and attain a sturdier fiber."²

"The rising interest in the problem presented by children between 11 and 15 or 16 can be traced in the literature, official and unofficial, on educational subjects for many years before 1918. It was due in the main to two different, but closely connected, considerations. The first, directed to the individual demoralization and social wastage too often following on the completion of the elementary school life, was emphasized in the Report by this Committee, on Attendance Compulsory or Otherwise at Continuation Schools, which appeared in 1909, as well as in the Majority and Minority Reports of the Poor Law Commission of the same year, the Report of the Departmental

²*Ibid.*, p. xix.

Committee on Juvenile Education in relation to Employment after the War, issued in 1917, and the Report of the Ministry of Reconstruction on Juvenile Employment published in 1918. The questions raised by these reports, all of which made educational recommendations of far-reaching importance, are partly outside our purview, and for an account of the social and economic conditions of the children concerned—the educational and industrial chaos described by the Departmental Committee of 1917—we must refer our readers to the relevant passages in the documents mentioned. But the problems which they described had also, as was emphasized in the reports, an educational reference. For school and industry are different facets of a single society, and the habit of mind which isolates them from each other is a habit to be overcome. Education fails in part of its aim if it does not prepare children for a life of active labor and of social cooperation; industry fails no less if it does not use and strengthen the qualities of mind and character which have been cultivated by education. It is to a clearer realization of the dangers to which many boys and girls are exposed at a critical period of their lives that the increased public interest in the education of children between 11 and 15 years of age is in great measure due. In considering the difficult questions connected with it—the curriculum best suited to develop their powers, the age up to which full-time attendance at school is desirable, the school as a training ground of character—the educationalist, unless he would build his castles in the air, is bound at every turn to take into account the probable future of the children and the nature of the industrial society into which, when their formal education has ceased, the majority of them will enter.

“If one consideration which has concentrated attention on the years between 11 and 16 has been a growing sensitiveness to the social problem which they present, a second, and not less significant, has been the progress of education itself. The remarkable advance made in the period since 1902 has had the effect both of raising new questions and of re-stating old questions with a heightened emphasis. The improvement in the quality of primary education has raised the general level of attainment among the older pupils in the elementary schools, has thus strengthened the foundations upon which further education can be built, and, for an increasing number of children, has turned attendance at school from a tiresome obligation, from which escape is to be sought at the earliest possible moment, into an interest and a pleasure which, if opportunity is forthcoming and if the financial circumstances of the family permit, both they and their parents desire to be continued. The raising of the age of compulsory school attendance to the end of the term in which the fourteenth birthday is reached, which was completed by the final abolition of partial exemption in 1921, and has been followed by an increase in the number of children remaining at

school beyond the age when the legal obligation to do so ceases, has emphasized the importance of ensuring that the fullest advantage is taken of the time thus gained, and has made it at once more urgent and more feasible to plan the education of children over the age of 11 plus as a progressive course, with a unity and character of its own."

There are other passages in the English report which describe in equally clear terms the necessity of organizing education in such a way as to meet the needs of pupils who are passing at 11 plus out of the period of childhood into the period of higher education. We must be content for present purposes with this mere reference to the argument which convinced the English Committee that more general provision must be made than is now made in England for pupils of adolescent age.

In order that the American reader may not misunderstand the import of some of the recommendations of the English Committee, it should be borne in mind that the term "secondary school" has long been in use in England as the designation for the traditional classical school open only to children from the higher levels of society. Secondary schools in England are of the same general type as the *Gymnasien* of Germany and the *lycées* of France. The English Committee has no available term such as we have in the American use of the term "secondary school" with which to refer to schools above the elementary level.

A full summary of the committee's recommendations is as follows:

The experience already gained as a result of the work done in central schools, junior technical schools, and the senior classes of elementary schools justifies the conclusion that, both on educational and on social grounds, it is of urgent importance to ensure that, with due allowance for the varying requirements of different pupils, some form of post-primary education should be made available for all normal children between the ages of 11 and 14, and, as soon as possible, 11 and 15. Progress must necessarily be tentative and experimental, but the objective—a universal system of post-primary education—should be held clearly in view, and the measures necessary to attain it should go steadily forward.

¹*Ibid.*, pp. 41, 42.

Primary education should be regarded as ending at about the age of 11 plus. A second stage should then begin, and this stage, which for many pupils would end at 16 plus, for some at 18 or 19, but for the majority at 14 plus or 15 plus, should, as far as possible, be regarded as a single whole, within which there will be variety of types of education but which will generally be controlled by the common aim of providing for the needs of children who are entering and passing through the stage of adolescence.

All normal children should go forward to some form of post-primary education. It is desirable, having regard to the country as a whole, that many more children should pass to "secondary" schools, in the current sense of the term. But it is necessary that the post-primary stage of education should also include other types of post-primary schools, in which the curricula will vary according to the age up to which the majority of pupils remain at school, and the different interests and abilities of the children.

In selective post-primary schools the course should be designed to cover the period from the age of 11 plus to that of 15 plus. In non-selective post-primary schools, so long as the leaving age is 14 plus, the course should be framed to cover the period from the age of 11 plus to that of 14 plus, but provision should be made for the needs of pupils who remain at school to the age of 15 plus.

The schools which deal with the post-primary stage of education should include (in addition to Junior Technical and "Trade" Schools) the following types:

(i) Schools of the "secondary" types now commonly existing, which at present follow in the main a predominantly literary or scientific curriculum, and carry the education of their pupils forward to the age of at least 16 plus.

(ii) Schools of the type of the existing selective Central Schools, which give at least a four years' course from the age of 11 plus, with a "realistic" or practical trend in the last two years.

(iii) Schools of the type of the existing non-selective Central Schools, which may either be the only Central Schools in their area, or may exist side by side with selective Central Schools and cater for those children who do not secure admission to such schools.

(iv) Senior Classes, Central Departments, "Higher Tops" and analogous arrangements, by which provision is made for the instruction of pupils over the age of eleven plus for whom, owing to local conditions, it is impossible to make provision in one or other of the types of school mentioned above.

A humane or liberal education is not one given through books alone, but one which brings children into contact with the larger interests of mankind. It should be the aim of schools belonging to the last three types to provide such an education by means of a curriculum containing

large opportunities for practical work and closely related to living interests. In the earlier years the curriculum in these schools should have much in common with that provided in the schools at present commonly known as "secondary"; it should include a foreign language, but permission should be given to omit the language in special circumstances; and only in the last two years should a "practical" bias be given to the courses of instruction provided.

At the age of 11 plus pupils from primary schools should normally be transferred to a different school, or, failing that, to a different type of education from that given to pupils under the age of 11 plus; but provision should be made in exceptional cases for the transfer of children at a later age, provided that the course which they pursue after such transference lasts sufficiently long to be of value to them.⁴

The two impressive facts which stand out clearly in these recommendations are that English civilization has reached the point where it must open the privileges of higher education to the whole population. In this respect the United States has long been in advance of any European country and can sympathetically accept the English committee's conclusions as reinforcing its educational policy. The second fact is that the English social system is not capable of readjusting itself to such an extent as to put into the same institution all pupils who have reached the secondary stage of education. The English system yields to the demand for universal participation in higher education, but it carries its lines of social separation up into the higher schools. At this point the report of the English Committee is in conflict with much of the practice of American schools.

The last statement is made in qualified form because there are in the United States those who advocate the establishment of trade schools and commercial schools separated entirely from academic schools.

This is not the place to undertake an argument for or against the separation of young people into schools of different types. The English Committee's report has recommended separation for obvious reasons which rise out of the history and supposed necessities of the English social system. It is for Americans to study the proposals and

⁴*Ibid.*, pp. 172, 173, 174.

ultimately the outcomes of the English Committee's work with a view to gaining wisdom for the guidance of practice in this country.

It may not be out of place to return in closing to the point which was emphasized earlier. The English are facing a demand for a fundamental reconstruction of their educational system. Confronted by this demand, they set at work some of the leading minds of the generation in formulating a plan which is carefully and deliberately considered and presented with a full and clear statement of the grounds on which the plan is based. On a few occasions, American education has exhibited the same foresight. The English example is very suggestive at the present time, when American education is undergoing rapid changes without the guidance of a well-considered plan.

CHARLES H. JUDD,
University of Chicago.

Predicting College Success for the High School Senior¹

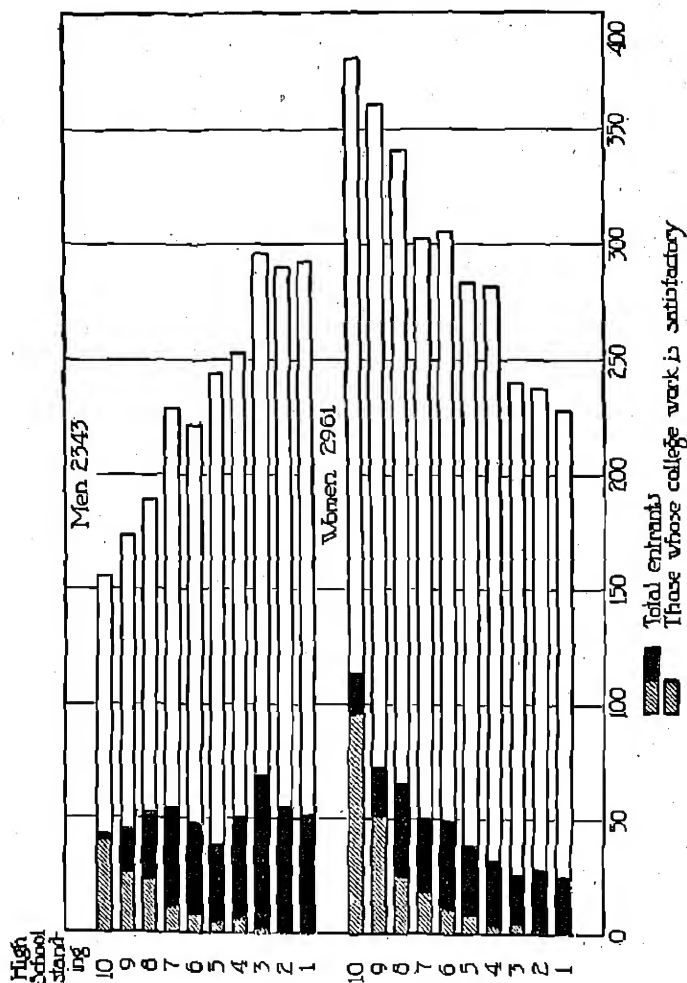
THE greatest dividends in higher education are to be gained by coordination of the effort of the high schools from which students come and of the colleges to which students go. There is, and always has been, a process of selection from stage to stage and year to year throughout the educational system. This is inevitable because of the inborn differences between individuals. Throughout the public school system this process of selection and direction is under a fairly constant unified control. This is true also in each college or professional school. Only at the transition between high school and college is this control dispensed with. I am glad to accept the invitation of the editor to write on the above topic in the hope of furthering cooperation between high school and college faculties for the benefit of students at the transition period.

WHICH STUDENTS GO TO COLLEGE?

The most helpful starting point is found in the present selection of high school students for college work. A very useful piece of cooperative work would be a complete study for one year or longer of the total list of students who go from the high schools of our cities to any college.

The graph herewith shows what part of the students from the Twin City high schools came to the College of Science, Literature, and the Arts at the University of Minnesota in the fall of 1922, 1923 and 1924. On the basis of school marks the graduates are divided into ten levels of which number 10 is the highest. The number of students at each level is shown by the total length of the bar in the graph. It is apparent that there are more girls than boys in the higher levels of scholarship and that the seniors who

¹Reprinted from the "Vocational Guidance Bulletin," Vol. II, No. 2, Minneapolis, Minn., Nov., 1927.



go to the university are only to a slight degree selected from the higher levels of scholarship. More boys go from the lower levels than from the higher.

It is important to hold in mind in this connection that the work of the college, any college, is presumed and intended

to be higher, more advanced and therefore more difficult than that of the high school. If this were not so, there would be no justification for the existence of the college.

The same figure shows the present success in college of the students selected as indicated. Only one-half of the entrants ever graduate from any college of the university. From thirty to forty per cent of the entrants are lacking in ability for the kind of thing they try to do. Whereas large numbers of students in the upper levels of high school scholarship who would probably do very well in college are staying away from any college, other large numbers who have already shown lack of aptitude for a career of study are coming to college and failing. While much is still to be learned by further studies and by experiments in training students in proper methods of study, it is entirely clear that we have here a very serious failure in advice and guidance. The results of this as shown in the failure, disappointment and discouragement of hundreds of students every year are appalling.

BASES FOR PREDICTING SUCCESS

How can the present methods of selection be improved upon? Whatever the machinery used, it must be based on some method of measuring aptitude which will not work injustice to individuals. The objective must be to find methods for making the prediction of performance of prospective students individually before the time of entrance so reliable that it can justly be used in determining what is wise and helpful advice and guidance.

Many elements may enter into the basis of prediction, such as: (1) the record of high school scholarship, (2) the results of psychological tests, (3) the interests of students, (4) their activities and experience during the high school period, (5) the advanced studies taken in the high school, and (6) estimates by principals and teachers. Of these, numbers 1, 2 and 5 can now be used in a mathematical way; that is, statistically. As fast as others can be reduced to exact method they should be brought into use.

The following table shows the contrast in college per-

formance, between students in the lowest and highest one-fourth of the high school class and the psychological test respectively.

College standing.....	F	D	C	B	A
<i>High School Record</i>					
Lowest fourth.....	92	83	4		
Highest fourth.....	7	88	190	89	1
<i>Psychological Test</i>					
Lowest fourth.....	79	141	34		
Highest fourth.....	17	90	140	68	1

Of the lowest fourth in the high school, 2.23 per cent secured the C average; of the highest fourth almost 75 per cent did so.

A PREDICTION BASED ON HIGH SCHOOL AND PSYCHOLOGICAL TEST RATINGS

A very simple method of prediction, involving only common arithmetic, has been developed on the basis of high school and psychological test ratings. It is necessary first to get the data into a form expressing the relative rank of the pupil as compared with his classmates. High school marks do not enable us to compare pupils coming from different schools because the marks given for the same order of work vary from teacher to teacher and from school to school. This is true both in high school and in college. However, the relative rank of a student in his class is a highly significant indication of his aptitude for school work.

Principals of high schools in the Twin Cities and some in other parts of the state and some in other states have co-operated splendidly with the university in furnishing this information, usually in this form: "This student stands sixth in a class numbering 154." This individual rank in high school is the most valuable single measure of probable fitness for college work. This rank is converted into a percentile rank to facilitate comparison of students from schools of different size. The psychological test score is treated likewise and the percentile rank computed for each student shows how he ranks in comparison with any average one hundred freshmen. These two percentile ranks are then

averaged and the result is called the "combined rating" based on performance in high school and psychological test.

A table is given to show the college record of students who stand at various ranks in the combined rating. At the left the combined rating is divided into five-percentile intervals; at the top the usual letter grades are divided into two levels each. The college record is the average of the marks received in all subjects during the year. The table is divided by a vertical line separating the grades D+ and C- because the average grade of C is required for promotion, for entrance to a professional school or for graduation. A horizontal line in each table is called the "threshold of ability." The table shows the results of actual prediction at the time of entrance. The prediction was that girls whose combined ratings were not above 25 and boys whose combined ratings were not above 35 would not secure the required or satisfactory standing of C in their college studies.

CORRELATION OF COMBINED HIGH SCHOOL AND TEST RATINGS
WITH FRESHMAN SCHOLARSHIP 1923, 1924, 1925

Men

Combined Ratings	F				C				
	F-	F+	D-	D+	C-	C+	B-	B+	A
98-100						6	9	2	
91- 96			2	1	6	8	4	2	
86- 90			5	4	10	8	5	1	
81- 85			4	10	12	5	3		
76- 80			4	8	8	1	1		
71- 75	2		1	5	12	1	2		
66- 70		1	4	15	6	4	1	1	
61- 65	1		8	12	6	3	2		
56- 60	4	3	6	11	8	3			
51- 55	3	8	10	13	4				
46- 50	5	3	12	12	4	2			
41- 45	4	3	14	8	6				
36- 40	9	7	11	10	5				243 161
31- 35	8	5	10	8	1				143 3
26- 30	10	6	12	7					
21- 25	12	2	10	2	1				
16- 20	9	4	8	1	1				
11- 15	9	2	1	2					
6- 10	6	2	2						
1- 5	4	1							

Women

Combined Ratings	F-	F+	D-	D+	C-	C+	B-	B+	A
96-100					2	4	9	3	1
91-95				1	8	9	11	7	
86-90				2	8	12	6	1	
81-85				1	8	8	8	1	
76-80	1		6	5	17	9	5	1	
71-75		2	1	4	10	6	4		
66-70	2	2	1		14	5	1		
61-65	2		6	15	12	5			
56-60	2	3	6	10	13	2			
51-55	1		13	12	9	4			
46-50		1	2	14	6	4			
41-45	3	2	7	13	6	2	1		
36-40	2	5	9	13	6				
31-35	7	4	7	9	8				
26-30	2	1	9	4	1				
21-25	5		9	4					220 256
16-20		2	9	5					62 0
11-15	5		3	3					
6-10	7	1	1	1					
1-5	1		2	2					

The number of students in each quadrant of the table is indicated in an inset in each table.

In the tables 1,088 students are represented of whom it was predicted that 208 would fall below the average of C. Of these 208 only three did secure the C standing. The prediction was made individually by name before any class work had been done or any class grades recorded.

The study of the students who entered in 1921 shows that not one whose ratings were below the "threshold" either graduated or made four years' progress in four years. In 1926-27, 783 students were studied including all those from Minnesota and other states for whom the high school rank had been furnished. The results were essentially like those shown in the table.

This method identifies in advance more than one-half of those who are unable to do college work. These are equal to about 20 per cent of the class and comprise 300 to 400 students in a large state university. Of the 40 per cent who stand lowest in the combined ratings only one-tenth

make satisfactory records in college. Of the failures among those with higher ratings prediction can be made in a considerable number of cases with a somewhat lower degree of accuracy.

THE ACCURACY OF THIS PREDICTION

The accuracy of the above prediction is so much greater than that which is secured in choosing employees in the industrial world or in other forms of prediction in human affairs that the error of less than one and one-half per cent may be regarded as negligible. This means that the injustice done to three persons by advising against college work is wholly incomparable to the injustice done to 205 persons when no action is taken and therefore advice to go to college is implied.

Predicting distinguished scholarship is much more difficult and cannot be fully discussed here. In 1925-26 a list of freshmen was prepared with the hope of including all those who would secure an average of B in their studies. Of the whole group 39 did secure the B average, and of these 36 were included in the advance list. Such predictions can be made with some degree of certainty. They will help the faculty to discover early those students who are most likely to respond to special opportunities and those who should be watched for danger of failing to realize their own potential abilities.

THE NECESSITY OF GUIDANCE

Through the cooperation of high schools and colleges a plan for the selection of college students could be devised that would be greatly to the advantage of the students and of society. The mere rejection of students upon entrance examinations is the least significant step. It contributes only a little toward the solution of society's problem of finding his proper place for each young citizen.

The first important step is the development of guidance in the high school, not only with reference to college attendance but also to other employments or occupations. This is needed by the individual boy or girl because of (1) the

complexity of modern society, (2) the relative failure of family guidance, and (3) the intensity of competition and the consequent importance of knowing one's own abilities and aptitudes and the qualifications needed for any vocation.

This service is due to society because of (1) the position of educational institutions as public servants, (2) the necessity of conserving funds devoted to education, (3) the importance of giving adequate opportunities to those most capable of intellectual achievement, and (4) the need of public understanding of social organization based on the fitness of individuals for their tasks.

The third element involves the dissemination of information until the public is acquainted with the basis of selection in individual differences and with the advantage to the individual of frankly facing the facts in order to find his place. People differ from one another in every known human trait. The differences in character, abilities, and interests are the only ground for social organization. A knowledge of these differences is the means by which the individual may discover his place in society.

The final step is the acceptance and the careful and sympathetic application of the technical means of prediction and selection already developed and the extension of these facilities by further research.

As a project for cooperation such plans as are being here suggested would require the high school (1) to undertake the vocational and educational guidance for its students and (2) to give to colleges the rank of each student in his high school class. High schools and the university would cooperate in giving psychological tests in each high school during April or May and at such other periods as necessary to give the colleges information before the students apply for entrance.

To the colleges and universities would fall (1) the work of devising and perfecting the tests, (2) publishing educational information and the results of studies and experiments, (3) helping the high schools in the work of guidance, (4) the selection of students at entrance and (5) the provision

of different kinds of training for different types of students in the college. The last point introduces a new chapter in higher education which can not be developed here. It is based on the simple principle which underlies the whole program of educational selection: *different kinds of education for different kinds of people.*

WHAT COULD BE ACCOMPLISHED

What could be accomplished by all this? Several hundred students each year in each state university, and students in other colleges as well, could be relieved of the disappointment, the waste of time and money and the discouragement which they now suffer through no fault of their own. They could be helped to find and prepare for some occupation that would bring them satisfaction and happiness.

The faculties could devote more attention to capable students. There is need of very great improvement in this field of higher education. Capable students would find competition and stimulation in the class room keener, interest in studies would increase and a higher order of training would be secured.

Students of greater capacity would fill the places of those lacking in aptitude and the university or college would operate on a higher plane.

The funds now devoted to supplying teachers, classrooms, books and laboratory equipment for those who are unable to profit by these things would provide for people who can use them to advantage and whose training would return dividends to the state. The object of such plans is not to save money but to make better use of it, to get a better product from the universities, to make the world a better place to live in.

The benefits of a true and just method of selection would be greatest of all to those who would be advised to stay away from college. They are now suffering shipwreck, while the more capable ones are fairly able to take care of themselves.

J. B. JOHNSTON,
University of Minnesota.

International Educational Relations

IN MARCH, 1924, the American Council on Education, the Institute of International Education, and the American University Union entered into an agreement that was designed to simplify and strengthen the administration of international educational relations of the United States with other nations. By the terms of this agreement, the Council was made responsible for maintenance of the Union offices in Paris and London and for general policies and standards of international exchange. The Trustees of the Union were appointed a standing committee of the Council in charge of these international functions, and the Institute was designated as the administrative agency for international educational exchanges of students, professors, and information.

To finance the operations under this plan, the Carnegie Corporation made a grant of \$30,000 a year for five years to the Institute, and the Laura Spelman Rockefeller Memorial agreed to match the Council's income dollar for dollar up to \$35,000 a year for five years, the money so given to be used in support of the international educational work of the Council. Because of this grant the Council guaranteed the Union \$25,000 a year for support of its work and the Union agreed to make no further appeal to colleges and universities for contributions. Their contributions in support of the Council were by this arrangement doubled, so that both Council and Union could continue their services to American higher education with less total cost to them.

This arrangement of 1924 was not the best possible combination. It was the best that could be made at that time. It supplied a workable plan under which all concerned could study the problem more fully. During the intervening years much study and thought has been given to the subject, both in the United States and abroad. As a result, it became gradually clear how absurd it is here at home to

have the same men sit on three different boards engaged in conducting three phases of the same basic enterprise. Abroad it seemed no less absurd to have a score of national officers each looking after its own nationals in matters that might better be cared for in one office maintained by the nation concerned as headquarters for foreign students and teachers.

By March, 1927, three years after the former agreement, a special committee representing the three organizations met in New York to consider the results of the three-year experience and study. This committee evolved a simpler and more effective plan of organization that met with hearty approval of all concerned. The essential points of this plan were presented to the Council at its Annual Meeting, May 7, 1927, as follows:

1. That the administrative Board of the Institute be incorporated as an independent board of trustees.
2. That steps be taken to hasten the process by which the Board of the Institute be made thoroughly representative, by having at least two-thirds of its Trustees elected from nominations by the Council, in accordance with the existing plan.
3. That steps be taken to secure an adequate endowment for the Institute, including the amount needed to conduct the work of the Union under its direction.
4. That the Council transfer the duties and responsibilities of its Committee on the American University Union to the Institute and that it discontinue that committee as well as other activities in the field of international education.

The plan was approved by the Board of the Institute of International Education, and by the Council at its Annual Meeting by unanimous passage of the following resolution:

Resolved: That the American Council on Education approved in principle the reorganization of relations between the Institute of International Education and the Council, as recommended by the Committee on the American University Union, and that the Executive Committee is hereby authorized to put the plan into operation as soon as practicable.

Simultaneous with the foregoing actions by the Institute and the Council, the Carnegie Corporation increased its grant to the Institute for the two calendar years 1927-8 to \$50,000 per year. Similarly, the Laura Spelman Rocke-

feller Memorial increased its grant to the Council for the same period to the same amount, and also changed the wording of the grant to read "for the development of the Institute of International Education."

The details of getting the plan into operation as soon as possible, referred to the Executive Committee by the Annual Meeting of the Council, were discussed at the regular quarterly meeting of the Executive Committee on September 24, 1927. Full text of the resolutions adopted have been sent to all members of the Council. Most of these resolutions deal with details concerning the transfer of funds, the substance of which is that the Institute shall receive for support of the Union funds at the rate of \$37,884 per year from May 1, 1927, to December 31, 1928; that the Council is to retain from the grant funds at the rate of \$7,116 per year for the same period; and that \$5,000 for each of the years 1927 and 1928 are set aside for research for the improvement of international educational relations, the special allocation of this fund to be in the hands of a sub-committee consisting of the Director of the Council, the Director of the Institute, and the delegate of the Institute on the Executive Committee of the Council.

The three resolutions approved by the Executive Committee at its meeting, September 24, 1927, which define the future relation between the Council, the Union and the Institute are as follows:

Resolved, That the Committee on the American University Union be herewith discontinued, with the understanding that hereafter full responsibility for further development of the activities which were under supervision of that committee will be assumed by the Institute of International Education, thereby liberating the Council from further obligation in the matter.

Resolved, That it is the sense of the Executive Committee of the American Council on Education that the development of the Institute of International Education as American headquarters for international educational activities would be fostered if the Institute were free to select as members of its Board those best qualified to render constructive service whether they were nominated by the Council or not; therefore,

Resolved, That the Executive Committee of the Council invites the

attention of the Board of the Institute to this question and recommends that this feature of the agreement of 1924 be also discontinued.

The suggestion in these last resolutions was considered by the Board of the Institute at its meeting, October 21, 1927, and the following By-Law was adopted which provides that the Board of the Institute shall be thoroughly representative of higher education in the United States:

The fourteen members nominated by scholarly and educational organizations shall be selected according to the following distribution: two by the American Council on Education, one by the Association of State Universities, one by the Association of American Universities, one by the Association of American Colleges, one by the American Association of University Professors, one by the National Education Association, one by the American Association of University Women, one by the American Association for the Advancement of Science, one by the National Research Council, one by the Social Science Research Council, one by the American Council of Learned Societies, one by the American Committee on Intellectual Cooperation, and one by the American Library Association.

While these changes were in progress, affecting the relations of the Council, the Institute, and the Union, the American Committee on International Intellectual Cooperation, correspondent of the Geneva Committee on International Intellectual Cooperation, also gave attention to the problem of international educational exchanges. Expressing its opinion in the matter, the following resolution was passed at its meeting, April 5, 1927:

Resolved, That the American National Committee suggests to the International Committee on Intellectual Cooperation that it should consider whether the benefit of study abroad would not be greatly increased if each nation affording facilities for foreign students and teachers within its borders would establish, by public or private enterprise, a central office whose functions would be:

1. To assist foreign students in finding and getting access to the educational facilities or research material they seek.
2. To help its own nationals to find the educational opportunities they seek abroad.
3. To keep corresponding offices in other countries informed concerning all phases of national education of interest to foreigners.

These resolutions were transmitted to the Institute of Intellectual Cooperation in Paris, and presented there to a Conference of Directors of National Offices for International

Exchange, held in Paris, June 2-3, 1927. The Conference was attended by representatives of the following countries: Germany, Belgium, Denmark, France, Hungary, Italy, Dutchland, Poland, Switzerland and the United States. The United States was represented by Dr. Gary Callins, Director of the American University Union in Paris. This meeting heartily endorsed the plan and forwarded it to the Plenary Committee at Geneva with the following requests:

The International Institute is asked to draw the attention of the National Committees on Intellectual Cooperation in the countries mainly concerned to the necessity of creating offices of the kind in countries which do not yet possess them.

The International Institute is asked to conduct an enquiry with a view to ascertaining what special steps have been taken in certain countries by the authorities, higher educational institutions and private persons with a view to facilitating the sojourn of foreign students in these countries, and to providing for their material, moral and intellectual requirements.

The Plenary Committee on International Intellectual Cooperation, at its meeting in Geneva, July 25, approved these requests and appointed a special committee to consider these and other related matters. The members of the special committee are: H. A. Lorentz, Holland; M. A. Dufour-Feronce (representing League of Nations); G. A. Murray, England; Vernon Kellogg, United States; Brunschvicg, France; Mlle. K. Bonnevie, Norway; and M. G. Oprescu, Roumania.

In order to foster the work of this new committee, the sub-committee of the Council's Executive Committee has agreed to devote \$5,000 of its fund for study of the international problem to the work of this special committee. It is planned to secure a fact-finding study in the important capitals of Europe of the number and nature of the various offices now concerned with the administration of international educational relations, particularly those designed to facilitate exchange of professors and students of all grades. In order that the data collected in the various capitals may be comparable, an outline of the facts desired has been prepared, and the new special committee invited to undertake the task. Such a report will bring to the

attention of the nations most vitally concerned the complex situation that now exists and thus aid in developing the idea that a single national headquarters for international educational exchanges is not only desirable, but would be an effective agent in better development of international understanding and good will.

At its meeting December 12, 1927, the American Committee on International Intellectual Cooperation approved this project and agreed to forward it to Geneva. As further evidence of its desire to foster the plan of unified national headquarters, the Committee added to its membership Dr. Henry S. Pritchett, Chairman of the Board, of the Institute of International Education, and Dr. S. P. Duggan, Director.

Plans for adequately financing the American National Headquarters in the Institute of International Education have made considerable progress. The Carnegie Corporation has authorized a grant of \$60,000 a year for five years, beginning January 1, 1929, for the support of this enterprise, provided a similar sum is raised from other sources. A year remains in which to secure the funds needed to make certain of this support. The Institute will then have an assured income of over \$100,000 a year and can operate effectively. By the recent reorganization, its Board has been made thoroughly representative of higher educational interests. It is hoped that all groups interested in international educational relations will more and more look to the Institute as their greatest help in conducting such relations.

The year 1927 has witnessed notable progress in the simplification and strengthening of administrative machinery for international educational exchanges. The central idea of the new plan is sound. If a nation desires foreign students and professors to visit her shores, she should herself act as hostess and facilitate their securing every facility for intellectual work. Such a relationship will do more to cement international friendships than the present one of having each nation look after its own nationals in every foreign country. It is hoped that this year will see as satisfactory progress toward this new ideal as that which has been made during the past twelve months.

C. R. MANN.

The Junior Year Abroad: A Successful Experiment

TO LEARN if and how undergraduates might include a period of foreign study in their preparation for an American baccalaureate degree, the American Council on Education conducted an experiment during the years 1924-27. All of the students involved have returned to their American colleges. It is possible now, therefore, to report on the success of the plan.

Of American college men and women, especially those who enter business and industry and, successful, become leaders in social and political life, very few have been able to study abroad. Medical students in Colonial days resorted to Edinburgh, in the nineteenth century went to Vienna and in the twentieth to London; graduate students from 1875 to 1900 pursued research and graduate study in German universities, and since the war have gone to France and Great Britain. For undergraduates, several business men and educators who appreciate the importance of having a body of young Americans trained to meet the expanding international responsibilities of the United States in scientific and political fields, cherished the opportunity of receiving part of their college training abroad. These gentlemen, who met in New York in January, 1924, and formed the Committee on Foreign Travel and Study were: Senator T. Coleman Dupont of Delaware, chairman; Dean Frederick B. Robinson, College of the City of New York, secretary; Marcus M. Marks, New York; Samuel P. Capen, Chancellor of the University of Buffalo; Stephen P. Duggan, Director of the Institute of International Education; Walter B. Hulihan, President of the University of Delaware; C. R. Mann, Director of the American Council on Education.

This Committee requested the American Council on Education to make a preliminary study of the problems involved

and provided the funds for this purpose. The American Council on Education requested President Frank Aydelotte of Swarthmore College to confer with the vice-chancellors of British universities regarding the general desirability of having American undergraduates enter their institutions. President Aydelotte on his return from England reported that, although there was a general desire to encourage graduate rather than undergraduate migration, the vice-chancellors gave general approval to the reception of a limited number of highly qualified American undergraduates. Meanwhile, in the United States, Mr. Marcus M. Marks presented certain phases of the proposal to the Association of Urban Universities and to the Association of American Colleges; and in other countries interested leaders. When American colleges were asked if they would grant credit toward the bachelor's degree for work done in foreign universities under the auspices of the American Council on Education, some 26 colleges indicated their willingness to do so. A detailed plan was then prepared.

The plan provided for students to spend the junior year abroad. The senior year was not chosen because nearly all American colleges expect candidates for degrees to spend the last year in residence at the degree conferring institution. The freshman and sophomore years were not selected because they continue secondary education and round out the student's general education and because usually freshmen and sophomores have not attained a maturity in educational and social experience sufficient for those who are to live for a year in a foreign environment. Therefore, it was thought best to experiment with students who had satisfactorily completed the first two years of college, who would spend a year in a foreign university, who would return to their American colleges and, having secured credit for the work done abroad, proceed to graduate with their class.

It was necessary to learn if the interest of American college students and officers, already indicated to some extent, was sufficient to justify the experiment. If a strong interest in the plan existed, it was then necessary to discover if Ameri-

cans who had satisfactory records in the first two years of college could secure admission to foreign universities, not as candidates for foreign degrees but as students intending to take American degrees and desirous, during their foreign sojourn, of securing the best possible educational experience in preparation for the American degree. To secure such admission, whatever might be the desirable form of matriculation or registration, what forms of credentials were most useful to the foreign university authorities, unaccustomed to American academic measurements in terms of courses, semester hours, majors, grades and quality points? What forms of credentials could foreign universities which do not engage in the American system of academic bookkeeping arrange to give the American student so that he might receive appropriate credit toward his degree? What guidance while abroad was necessary, desirable or possible? In addition to educational problems, were there social, financial and other adjustments important to make? Would experience with the plan expose any disadvantages? What would students, parents, and professors think of the advantages of the program? If it proved to be possible to secure the admission of American undergraduates to foreign universities, and if it proved to be possible that American students could pursue abroad studies which could be appropriately counted toward their American degree, and if it proved to be possible to provide credentials which could be conveniently evaluated by foreign authorities on the one hand and American registrars on the other, and if adequate guidance while abroad could be secured, would the advantages revealed by the experience so outweigh any possible disadvantages that qualified American students should be encouraged to spend the junior year abroad?

In an experimental age it was natural that a controlled experiment be used to develop the answers to these questions. The committee on Foreign Travel and Study gave to the American Council on Education funds to provide nine scholarships of \$1,000 each for use during the year 1925-26 in accordance with the plan. The generous donors were

Mrs. Andrew Carnegie, who designated that her scholarship should be awarded to a student of New York University; Mr. Aaron Naumburg, who requested that his scholarship be granted to a student of the College of the City of New York; Mr. S. W. Straus; Mr. Felix M. Warburg, who placed no restrictions on the assignment of his three scholarships; and Senator T. Coleman Dupont, who presented three.

Although less than two months elapsed between the announcement of these scholarships and the date for the receipt of applications, 155 excellently qualified students in 67 colleges of 32 states made requests for grants. These applications were accompanied by declarations of eagerness to cooperate on the part of parents, presidents, deans, registrars and college professors. Requests for information were received from students not at the moment eligible, recent graduates, seniors, and those who had not reached the end of their second college year. It was clear that a genuine interest existed.

The scholarships for 1925-26 were awarded to:

<i>Name</i>	<i>American University</i>	<i>Foreign University</i>
Philip L. Bourdman	Colorado State Teachers College	Univ. of Montpellier
William B. Brown	New York University	Univ. of Munich
Clyde E. Dickey, Jr.	Yale University	Univ. of Madrid
Robert S. Huse, Jr.	Princeton University	Univ. of Madrid
Frederick H. Lumley	Ohio State University	Univ. of Munich
Frank C. Monaghan	Cornell University	Univ. of Manchester
James R. Pennock	Swarthmore College	Univ. of London
Milton Schilback	College of the City of New York	Univ. of Paris
Edna M. Wilson	University of Chicago	Cambridge Univ.

To prepare the way for these students the Assistant Director of the American Council on Education conferred with educational authorities in Great Britain, France, and Germany, and corresponded with those in Spain. These authorities included not only the Vice Chancellors and other heads of universities but registrars, advisers of students, and others interested in and willing to aid the experiment. Especially he studied the credentials which had been presented by American students received in foreign universities and noted particularly the kind of evidence regarded as most useful by the admitting officers. On the basis of the facts

thus learned and experience in transferring students from one American university to another it was decided to approximate as nearly as possible a common-sense statement of the extent of a student's achievement, especially in his principal subject, and a general statement regarding its quality in terms comprehensible at home or abroad.

Each student carried with him an official transcript of his college record expressed in the usual American terms of courses, semester hours, grades and quality points. The catalog of the college afforded a description of the courses mentioned in the transcript of record. In addition to these indispensable items a statement of achievement was furnished by the student's dean and by the Assistant Director of the American Council on Education, who also transmitted to the foreign university a copy of the student's application for a scholarship, which formed a very full and precise personal record, the value of which had already been proved in the award of scholarships. Science students carried with them laboratory notebooks and some final examinations of the preceding year. One carried with him the textbooks used in his major courses. Letters of introduction were in the pockets of all of the students but proved to be generally unnecessary except for the purpose of developing social contacts. Each student carried a letter of introduction from the American Council on Education to the head of his chosen university.

Because of the genuine interest and courtesy of the foreign educational authorities in cooperating with the American Council on Education, the most effective document presented by each student was his letter of introduction from the Council. At least so it would appear from the impressions reported by the students while seeking adjustment to their new academic environments. It must be remembered, however, that an essential part of the situation was the understanding of the general purpose of the experiment and the special qualifications of the student, all of which had been made clear in conferences and correspondence before the student's arrival. Both the official transcript of record

and a common-sense statement of the extent and quality of the student's achievement seem to be necessary.

A detailed account of the form of matriculation or registration found possible and desirable for each student will be found in the EDUCATIONAL RECORD for April, 1926 ("The Junior Year Abroad," by David A. Robertson, EDUCATIONAL RECORD, VII, 2; pp. 98-113). At this time it is sufficient to say that American and foreign educational authorities alike were agreed that the students should not enter as regular candidates for the foreign degree, but should seek rather a status which would permit them to choose from all offered lectures those of greatest value in relation to their American degrees. At Montpellier, for instance, if Mr. Boardman had been a candidate for a French degree, he would have had to pursue the regular and rigid curriculum of the first university year. In this schedule it happened that there was no subject bearing directly on his American curriculum. By registering as a free student he was able to enter even third year courses and advanced courses of graduate character. In Paris and Munich the same advantage was secured by "immatriculation" and the "kleine matrikel." The only disadvantage incurred by this form of matriculation lay in the fact that the student was not admitted to the final examination.

On his return to his American college the student was in the position of seeking advanced standing for a year of work elsewhere. In case perfectly regular credentials such as are known to American colleges could be secured (official transcripts of record showing courses pursued as measured by semester hours and grades), the university examiner or committee on advanced standing had a normal case to consider. If such official transcripts of record could not be secured, the student was in the position of applying for credit for what some college regulations call "work informally done." One important difference is to be noted: Each student had a record of two years of high success in the institution from which he was seeking recognition of his work abroad.

The easiest case to handle was that of Mr. Pennock of Swarthmore College. Having been accepted as a candidate for an honors degree in social sciences, he was relieved of the usual tallying of semester hours during the third and fourth college years and responsible only for an individual program of residence study which would successfully prepare him to take a final degree examination. A letter from Dean Raymond Walters makes clear the method of handling this case:

Dr. R. C. Brooks, chairman of the Honors Division of Social Sciences, outlined Pennock's course at the London School of Economics so as to fit in with the work covered in the first year of our honors course in Social Sciences. Upon his return to Swarthmore in September, 1926, Pennock did not present formal records of his work at the London School of Economics. Dr. Brooks questioned him about his work—a sort of oral examination. It was evident at once that Pennock had benefited tremendously by his experience in England, and this first impression was abundantly confirmed in his senior year at Swarthmore. Pennock did brilliant work and won his Bachelor's degree with highest honors upon the basis of rigorous examinations, both written and oral, set by external examiners.

Mr. Monaghan presented to the Cornell authorities letters from his Manchester professors: C. S. Higham (History, 1688-1744), J. D. Wright (English Literature, 1660-1760), and Henry Clay (Political Economy). These letters described the extent and quality of his work with them. He also presented a detailed statement from Prof. F. M. Powicke, Professor of Medieval History and Dean of the Faculty of Arts. These credentials were referred to the student's Cornell professor of history, Dr. Wallace Notestein, who had intimate knowledge of educational conditions in the University of Manchester. On Professor Notestein's recommendation Mr. Monaghan was allowed credit for a full year of work.

Miss Wilson presented to the examiner of the University of Chicago statements by her tutor at Newnham College. Because her principal subject was Botany, the Department of Botany was invited to recommend credit based upon her credentials. She received credit for a full year of work at Newnham College.

Students from France presented the *Livret d'Etudiant* in which were entered courses with descriptions of content and comments on assiduity signed by each professor. Mr. Boardman presented in addition a statement by the dean of the Law School who had signed and sealed the *Livret d'Etudiant*. He received credit for a full year of college work.

Mr. Schilback was fortunate in having in Paris the friendly advice of Dr. Jaffe of the College of the City of New York. Throughout the year Dr. Jaffe and Mr. Schilback were in constant touch with the authorities of their college. At the end of the year Dr. Jaffe gave an explicit report to the college officers concerning the work of Mr. Schilback, who had regularly presented a monthly essay to Dr. Jaffe. On the basis of the certificates presented by Mr. Schilback and the reports by Dr. Jaffe, the Committee on Course and Standing, mindful of the excellence of the student's record during his first two years, and desirous of recognizing the high quality of his work abroad, voted not only to grant him credit for a full year of work but to assign for it not merely the ordinary passing grade usually allowed in the case of advanced standing, but a grade which should be the average of his three years in the College of the City of New York.

From Germany, Mr. Lumley brought back his fee book showing the courses for which he had paid and in which he was enrolled, and a certificate of departure showing that when he left Munich he had done so in good financial standing. The examiner of Ohio State University called in Prof. R. G. Hoskins of the Physiology Department, Prof. F. L. Lundacre of Anatomy, and Dean William McPherson of the Chemistry Department. To them Lumley showed the textbooks he had used and the notes made during his year in Munich and also during his subsequent stay in Paris. He presented also a statement from the *Chemisches Staatslaboratorium* showing the completion of certain exercises. In Lumley's case credit was assigned by departments. In some cases this caused difficulty. For instance, his second

semester of Zoology in Germany was a course in the comparative anatomy of vertebrates, a course given in Ohio State University by the Department of Anatomy. The two departments concerned at Ohio State agreed to assign credit for elementary courses in physiology and zoology. In Physical Chemistry the content of the Munich work was so different from that of the corresponding Ohio State course that he received credit for two semester hours, which meant simply a reduction of the graduation requirements in that subject. An informal examination in French led to the assignment of ten semester hours of credit in this language. For fifteen credit hours in German he offered a list of books read and wrote a report. He received full credit for his year's work.

The other student from Munich, Mr. Brown, took up his work as a junior in New York University because he desired to secure certain courses in electrical oscillation and physical chemistry. Although he deliberately and gladly waived any claim for credit for the entire work abroad, he did receive credit for work in synthetic, organic chemistry, on presentation of his laboratory preparation record signed by the Munich laboratory assistant. For the American course, which required fifteen preparations, he presented 68 preparations and 21 organic analyses. He might have received credit for industrial chemistry but did not claim it because he wished to pursue the subject in his American college on account of the important differences between German and American industry. The German Department allowed him credit for a course in German Literature on the basis of a report on certain books. Mr. Brown writes: "I should certainly advise anyone who can do so to study a year in a foreign university. Whether or not a year's credit is secured in the American university appears to me to be of lesser importance."

Of the students who went to Spain, Mr. Dickey returned in the middle of the year and Mr. Huse did not wish to substitute the year of work in Madrid for the Junior Year at Princeton. The latter did, however, offer to the Modern

Language Department two certificates granted by the Centro de Estudios Historicos and was permitted to take a six-hour examination in Spanish 201, a sophomore course which he had not previously taken. He passed this examination and was admitted to Spanish 301. Although Mr. Huse did not seek formal credit for his experience abroad in terms of junior year requirements at Princeton, he says that the study he did abroad has been of immense importance and help to him at Princeton. "I may say that my year abroad was by far the most profitable and interesting of my life up to the present time."

To summarize the experience of the first scholarship holders in securing American college credit for their work abroad it may be said that, of the nine, one returned to the United States early; two decided not to claim any credit for the work done abroad; six received full credit for the year's work in foreign universities.

Reports of progress made to the Committee on Foreign Travel and Study in the spring of 1926 led the committee to persist in its studies. Again Mrs. Andrew Carnegie gave a scholarship for the use of a New York University student. Again Mr. Aaron Naumburg presented one to be given a student in the College of the City of New York and added one for a student of Amherst College. Again Mr. Felix M. Warburg presented three. Again Mr. S. W. Straus provided a scholarship without restriction. For these 134 applications were made by students in 78 colleges in 36 states. Awards were made as follows:

<i>Name</i>	<i>American University</i>	<i>Foreign University</i>
Hilda C. Donahue	Smith College	University of Paris
Edward J. Hoffman	College of the City of New York	University of Paris
Frank L. Johnson	University of Minnesota	University of Paris
Howard A. Schwerzel	New York University	University of Paris
Winifred Starbuck	State University of Iowa	University of Paris
Theodore S. Whitford	Amherst College	University of Paris
William B. Wilcox	Cornell University	Cambridge Univ.

During the year 1925-26 the Assistant Director of the American Council on Education had the opportunity to study carefully the University of Delaware Plan for Foreign Study, which had been organized in 1924 by President

Walter Hulihan, a member of the Committee on Foreign Travel and Study and directed by Prof. Raymond W. Kirkbride. This plan provided for supervised study first in a provincial university and later at the Sorbonne, the students being under the constant guidance of the Director. This officer took care of all academic, social and financial details. Having confidence in the Delaware Plan, the American Council on Education requested the University of Delaware to admit to its group students of other American colleges. The University of Delaware graciously consented to receive such students for the year 1926-27. The Smith College Plan for Foreign Study, a competitive scheme for students majoring in French, had likewise won the confidence of the American Council on Education. Therefore, when the 1926-27 scholarships were awarded, students were permitted to join the Delaware or Smith groups. During this year five of the scholarship holders joined the Delaware group; one was a member of the Smith College delegation; and one went to St. John's College, Cambridge.

Both the Delaware and Smith College Plan afford a simple way of checking the work of the student abroad and assuring the American college faculty of proper standards of attainment. Mr. Willcox of Cornell presented to the Cornell authorities a certificate of diligent study signed by his tutor and the Master of St. John's College and the lecturers whose courses he attended. In addition he presented a formal letter from his Supervisor to the effect that his work had been of such quality that he would recommend the granting of a year's credit for it at Cornell. Cornell University has not yet evaluated these because an unfortunate accident and consequent disability interfered with Mr. Willcox's program.

It is clear that the students of 1925-26 and of 1926-27 may be placed in two groups: those who had direct and continuous supervision as members of the Delaware or Smith group, and those who individually had to solve their various problems with such guidance as they might be able to find in their several situations. All of the members of the 1925-26 group spoke emphatically of the importance of the

independence and self-reliance developed by their experience abroad. One of them protested vigorously against such supervision as is available for members of the Delaware group. One woman, a member of the Delaware group, expressed the opinion that the very thoroughness of organization of the Delaware enterprise interfered with the development of individual initiative and self-reliance. These reactions may be considered interesting manifestations of individual differences. They also raise a question which must be answered separately for each student concerned.

Invited to mention the disadvantages noted during their experience the students generally declared that the disadvantages were of minor importance. Some of the items named were: Necessary readjustments to new conditions on two occasions within a year, the readjustment to American conditions being almost as difficult as adjustment to the foreign situation; certain difficulties in social relations, particularly as concerns recognition by clubs and other organizations; in giving up training as a member of a track team for a full year. All agreed that the interference with extra-curriculum activities was not serious.

A request to specify the advantages of the Junior Year abroad resulted in enthusiastic concrete expressions of opinion so interesting that they deserve publication at length at some other time. At present space forbids more than the declaration that there is an emphatic agreement that the advantages far outweigh the disadvantages and that these students would advise their friends to spend the junior year abroad even if credit could not be secured for the foreign work. It is clear also that parents and college teachers who have observed the effect upon these scholarship holders are agreed concerning the great value of the experience. There is room for only one letter addressed to a college officer by Prof. F. B. Lumley of Ohio State University, the father of Frederick Hillis Lumley and printed with Professor Lumley's consent:

In answer to your inquiry about the effects on Hillis of his trip abroad I would say:

He has learned, to his advantage, that there can be two very different types of educational systems—both effective. And this is a very significant gain in anybody's thinking—to learn that there are other ways that are just as good. He has returned in a rather critical mood towards our own system here—which is also good.

He has had his eyes opened to the vast cultural resources of Europe in ways which could not be brought about by staying at home and reading. And he used his time to advantage toward this end. He wrote constantly about the museums in Munich and their marvels. Of course the trip to Italy and the stay in Paris enlarged his horizon immensely.

He became very fond of the German people and has said several times that he would not mind living over there. Needless to say he is more tolerant of other people and their ways.

When he went over he was interested in music, but mainly in jazz. While there he saw something over fifty grand operas, and that experience opened his eyes to a world of which he had never caught a vision before. Since his return he keeps up his interest in good music and now buys only the very best victrola records, and works at these operas on the piano. This is vast gain.

On the basis of this experience he was chosen recently to lead a party of students abroad next year by one of the tourist concerns. In his conversation with the manager, who gave him this job, he must have shown a good deal of maturing judgment and wide acquaintance with European conditions.

He was immensely stimulated in his enthusiasm for language. He has learned German, of course, and now takes lecture notes in class in German so as to keep it up; he learned French, and reads French books all the time; he made a start at Italian, and knows enough to make his way about; he started to learn Russian, and has made some progress. I think this is a pretty good record—usable German and French in fifteen months, and a start at two other languages. Above all, he gained a new recognition of the incalculable importance of human speech in human relations. He now knows better how misunderstandings arise.

He is a better student, of course, since his return; he knows how to study better; he has better ideas of how to attack a subject; he knows better what he wants; he has better access to the literature and reads foreign books that bear on his field.

He has about decided to make Psychology his major, and it looks as if he would teach—which is not at all displeasing to me. It was a wonderful experience from every point of view, just at the right time in life. The American Council has certainly done a vast amount for Hillis, and we both feel under eternal obligation to it.

It is to be hoped that from the foregoing it is clear why

the experiment of the American Council on Education has been deemed successful and why, the experiment ended, the Council has requested the Committee on Foreign Travel and Study to continue its interest and to award future scholarships through the organization which in the United States is responsible for the administration for scholarships for foreign study—the Institute of International Education. The Institute is administering scholarships abroad during the present year and has announced that ten scholarships will be awarded for the year 1928-29. Parents, college authorities, and students may confidently cooperate in the further development of this interesting plan to afford American students while proceeding to their American degrees an opportunity to pursue a part of their education in the universities of other countries and thereby contribute to greater understanding and friendship among men of different nations.

DAVID A. ROBERTSON.

Pending Education Bills

THE SEVENTIETH Congress has assembled. 10,250 bills were introduced during the first two weeks from its opening, December 5, to the Christmas recess, December 21, 1927. Of these, 1,981 are Senate bills and 8,269 House bills. Last session, during the same period, 1,987 Senate bills and 6,494 House bills were introduced.

For education the most important bill is the Curtis-Reed Bill (S. 1584-H. R. 7). This is the same as the Curtis-Reed Bill of last session except that a new Section 10 has been added, creating a National Council on Education, composed of the State Superintendents, to advise with the proposed Secretary of Education. Because this bill is likely to receive during this session even more attention than it did during the Sixty-ninth Congress, it is here reproduced in full.

S. 1584, H. R. 7. Mr. Curtis in the Senate. Mr. Reed in the House. To create a Department of Education and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is established at the seat of government an executive department to be known as the Department of Education, which shall be under the control and direction of a Secretary of Education, to be appointed by the President, by and with the advice and consent of the Senate. The Secretary of Education shall receive a salary at the rate of \$15,000 per annum. Section 158 of the Revised Statutes is amended to include the Department of Education, and the provisions of Title IV of the Revised Statutes, as now or hereafter amended shall be applicable to the department. The Secretary of Education shall cause a seal of office to be made for the Department of Education of such device as the President shall approve, and judicial notice shall be taken thereof.

SEC. 2. There shall be in the Department of Education an Assistant Secretary of Education, to be appointed by the President and to receive a salary of \$7,500 per annum. The Assistant Secretary shall perform such duties as may be prescribed by the Secretary of Education or required by law. There shall also be a solicitor, a chief clerk, and a disbursing clerk, and such chiefs of bureaus and such scientific, technical, and clerical assistants as may be necessary to carry out the pro-

visions of this Act and as may be provided for by Congress from time to time.

SEC. 3. (a) The Bureau of Education and all pertaining thereto is transferred from the Department of the Interior to the Department of Education.

(b) The office of Commissioner of Education is abolished, and the authority, powers, and duties heretofore conferred and imposed by law upon the Commissioner of Education shall be exercised and performed by the Secretary of Education.

(c) The Federal Board for Vocational Education is transferred to the Department of Education, and all the authority, powers, and duties heretofore conferred or imposed by law upon the Federal Board for Vocational Education shall be exercised and performed by the board as a division of the Department of Education. The Secretary of Education shall be a member of the Federal Board for Vocational Education and ex officio chairman of said board.

(d) The authority, powers, and duties conferred and imposed by law upon the Secretary of the Interior with relation to the Columbia Institute for the Deaf and Howard University shall be exercised and performed by the Secretary of Education.

SEC. 4. (a) Except as otherwise provided by this Act, all authority, powers, and duties held, exercised, and performed by the head of any executive department in and over any bureau, office, or branch of the Government which is by this Act transferred to the Department of Education, or which is abolished by this Act and its authority, powers, and duties transferred to the Department of Education, or in and over any business arising therefrom or pertaining thereto, or in relation to the duties performed by and authority conferred by law upon such bureau, office, or branch of the Government, whether of an appellate or revisory character or otherwise, shall be vested in and exercised and performed by the Secretary of Education.

(b) All orders, rules, and regulations which have been made or issued by any bureau, office, or branch of the Government, which is transferred under the provisions of this Act to the Department of Education and which are not inconsistent with the provisions of this Act, shall continue in effect until modified, superseded, or repealed by the Secretary of Education, or, in the case of the Federal Board for Vocational Education, by the board with the approval of the Secretary of Education.

SEC. 5. All officers, and employees employed in or by any office bureau, or branch of the Government, transferred in accordance with the provisions of this Act to the Department of Education, are transferred to the Department of Education without change in classification or compensation; and the records and property, including office equipment, of any such office, bureau, or branch of the Government so transferred, are transferred to the Department of Education.

SEC. 6. The Secretary of Education shall have charge in the buildings and premises occupied by or assigned to the Department of Education, of the library, furniture, fixtures, records, and other property pertaining to the department or hereafter acquired for use in its business. Until other quarters are provided, the Department of Education may occupy the buildings and premises occupied by the bureaus, offices, and branches of the Government which are by this Act transferred to or included in the Department of Education.

SEC. 7. In order to coordinate the educational activities carried on by the several executive departments, and to recommend ways and means of improving the educational work of the Federal Government, there is hereby created the Federal Conference on Education, which will consist of one representative and one alternate appointed by the head of each department. The Federal Conference on Education shall not report as a body to any one department, but each representative shall report the findings of the Federal Conference on Education to his own department for consideration and independent action.

SEC. 8. (a) The Department of Education shall collect such statistics and facts as shall show the condition and progress of education in the several States and in foreign countries. In order to aid the people of the several States in establishing and maintaining more efficient schools and school systems, in devising better methods of organization, administration and financing of education, in developing better types of school buildings and in providing for their use, in improving methods of teaching, and in developing more adequate curricula and courses of study, research shall be undertaken in (1) rural education; (2) elementary education; (3) secondary education; (4) higher education; (5) professional education; (6) physical education, including health education and recreation; (7) special education for the mentally and physically handicapped; (8) the training of teachers; (9) immigrant education; (10) adult education; and (11) such other fields as in the judgment of the Secretary of Education may require attention and study.

(b) The department shall make available to educational officers in the several States and to other persons interested in education, the results of the research and investigations conducted by it, and the funds appropriated for printing and binding for the Department of Education shall be available for the printing and binding of the results of such research and investigations.

SEC. 9. For the fiscal year ending June 30, 1929, and annually thereafter, the sum of \$1,500,000, or so much thereof as may be necessary, is hereby authorized to be appropriated, out of any money in the Treasury not otherwise appropriated, to the Department of Education, for the purpose of paying salaries and the conducting of studies and investigations, the paying of incidental and traveling expenses

incurred in connection with the investigations or inquiries undertaken by the department, and for law books, books of references, and periodicals, and for the paying of rent where necessary, and for such other purposes as may be necessary to enable the Department of Education to carry out the provisions of this Act. All unexpended appropriations which shall be available at the time when this Act takes effect in relation to the various bureaus, offices, and branches of the Government which are by this Act transferred to or included in the Department of Education, or which are abolished by this Act, and their authority, powers, and duties transferred to the Department of Education, shall become available for expenditure by the Department of Education and shall be treated the same as if such bureaus, offices, and branches of the Government had been directly named in the laws making the appropriations as part of the Department of Education.

SEC. 10. There is hereby created a National Council on Education to consult and advise with the Secretary of Education on subjects relating to the promotion and development of education in the United States and in its possessions, which national council shall consist of the several State superintendents of education or other State chief educational authorities by whatever title known, and one member from each of the United States possessions, namely: Alaska, Hawaiian Islands, Philippine Islands, Porto Rico, and Isthmus of Panama. The Secretary of Education shall be chairman of said council. The members of said council shall meet for conference once each year at the call of the Secretary of Education; they shall serve without pay, but their actual expenses incurred in attending the conferences called by the Secretary shall be paid by the Department of Education.

SEC. 11. The Secretary of Education shall annually, at the close of each fiscal year, make a report in writing to Congress, giving an account of all moneys received and disbursed by the Department of Education, and describing the work done by the department. He shall also from time to time make such special investigations and reports as may be required of him by the President or by either House of Congress or as he himself may deem necessary and urgent.

SEC. 12. This Act shall take effect thirty days after its passage, except that the provisions of this Act in relation to the transfer of any agency from the jurisdiction and control of one officer to the jurisdiction and control of another, or in relation to the abolishment of any existing agency, or in relation to the transfer of authority, powers, and duties from one officer or agency to another, shall take effect July 1, 1929.

H. R. 7

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is established at the seat of government an executive department to be known as the

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bureau, office, or branch of the Government, whether of an appellate or revisory character or otherwise, shall be vested in and exercised and performed by the Secretary of Education.

(b) All orders, rules, and regulations which have been made or issued by any bureau, office, or branch of the Government which is transferred under the provisions of this Act to the Department of Education and which are not inconsistent with the provisions of this Act shall continue in effect until modified, superseded, or repealed by the Secretary of Education, or, in the case of the Federal Board for Vocational Education, by the board with the approval of the Secretary of Education.

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(5) professional education; (6) physical education, including health education and recreation; (7) special education for the mentally and physically handicapped; (8) the training of teachers; (9) immigrant education; (10) adult education; and (11) such other fields as in the judgment of the Secretary of Education may require attention and study.

(b) The department shall make available to educational officers in the several States and to other persons interested in education the results of the research and investigations conducted by it, and the funds appropriated for printing and binding for the Department of Education shall be available for the printing and binding of the results of such research and investigations.

SEC. 9. For the fiscal year ending June 30, 1929, and annually thereafter, the sum of \$1,500,000, or so much thereof as may be necessary, is hereby authorized to be appropriated, out of any money in the Treasury not otherwise appropriated, to the Department of Education for the purpose of paying salaries and the conducting of studies and investigations, the paying of incidental and traveling expenses incurred in connection with the investigations or inquiries undertaken by the department and for law books, books of reference and periodicals, and for the paying of rent where necessary, and for such other purposes as may be necessary to enable the Department of Education to carry out the provisions of this Act. All unexpended appropriations which shall be available at the time when this Act takes effect in relation to the various bureaus, offices, and branches of the Government which are by this Act transferred to or included in the Department of Education, or which are abolished by this Act, and their authority, powers, and duties transferred to the Department of Education, shall become available for expenditure by the Department of Education and shall be treated the same as if such bureaus, offices, and branches of the Government had been directly named in the laws making the appropriations as part of the Department of Education.

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SEC. 12. This Act shall take effect thirty days after its passage, except that the provisions of this Act in relation to the transfer of any agency from the jurisdiction and control of one officer to the jurisdiction and control of another, or in relation to the abolishment of any existing agency, or in relation to the transfer of authority, powers, and duties from one officer or agency to another, shall take effect July 1, 1929.

During the Sixty-ninth Congress, joint hearings were held, February 24-26, 1926, before the Senate and the House Committees on the subject of the proposed Department of Education. Copies of the report of these hearings were sent to all members of this Council. In these hearings it became evident that both proponents and opponents agreed that the Federal Government should give larger support to research and fact-finding activities in education. The hearings seem to have made an impression on the Joint Committees, because shortly thereafter Congress made a special appropriation of \$117,000 to the Bureau of Education for a survey of the Land Grant Colleges, and Senator Phipps of Colorado introduced a bill giving larger support to the Bureau of Education for its fact-finding and news distributing service. This bill was favorably reported out with the Senate Committee before the close of the last session. It has been reintroduced this session as follows:

S. 1273. *Mr. Phipps. To provide for the better definition and extension of the purpose and duties of The Bureau of Education.*

This bill provides that, in order to enable the Bureau of Education more effectively to carry out its purpose it is authorized and directed to conduct studies in the following fields: (1) Illiteracy; (2) immigrant education; (3) public school education, including administrative organization, construction of school buildings, cost of education, and

organization and arrangement of school curricula; (4) physical education, including health education, recreation, and sanitation; (5) preparation and supply of competent teachers for the public schools; (6) higher education; and such other educational matters and subjects as in the judgment of the Commissioner of Education may require attention and study. The Commissioner of Education is authorized to cooperate with state school authorities and with other educational agencies that volunteer in making these studies. The Secretary of the Interior is authorized to appoint special investigators for these studies, but all employees of the bureau shall be appointed from the list of eligibles from the Civil Service Commission. An appropriation of \$250,000 is authorized in addition to the appropriations already approved for the Bureau of Education. There is created in the Bureau of Education a Federal Council on Education to coordinate the educational activities of the Federal Government. This Council does not report to any one department but each representative reports actions of the Council to his own department for individual action. There is also authorized a National Council on Education of fifteen members appointed by the Commissioner of Education to advise with the Commissioner on educational policies.

S. 809. Mr. Copeland. To establish a Council on Universities and Colleges in the District of Columbia.

Proposes creation of a Council on Universities and Colleges, consisting of 9 members, appointed by the President with the consent of the Senate, to (a) Establish standards for incorporated educational institutions in the District of Columbia that confer academic, professional and technical degrees; (b) Act as rector in quo warranto proceedings for forfeiture of the franchise of any institution in case of misuser or nonuser of such franchise; (c) Approve or disapprove the filing of the certificate of incorporation of corporations with degree-granting powers; (d) Approve or disapprove proposed mergers of such corporations in the District of Columbia; (e) Act as complainant in proceedings to enjoin the operations within the District of Columbia of

foreign corporations with degree-granting powers; (f) Do anything legal which the Board may deem necessary for maintaining proper standards in granting degrees by colleges. The bill forbids the use in the name of the institution of the words "National," "United States," "Federal," or other words that imply such an institution is supported financially or otherwise fostered by the U. S. Government. No institution chartered by states or by foreign countries may confer degrees in the District of Columbia without approval of this Council. The Council is directed to collect information concerning conferring degrees in the District of Columbia and make an annual report to Congress. No appropriation is provided.

S. 1285—*Mr. Capper. H. R. 6074—Mr. Ketcham. To provide for the further development of agricultural extension.*

This authorizes an appropriation of \$960,000 annually, and an additional appropriation of \$500,000 annually until the total annual appropriation reaches the sum of \$6,960,000. This money is to be distributed to the States in accordance with the conditions of the Smith-Lever Act of May 8, 1914, to provide for agricultural extension work, with the added requirement that at least 80 per cent of all appropriations under this account shall be authorized for the payment of salaries of extension agents in counties to develop the cooperative extension system in agriculture and home economics, including work with boys and girls. These appropriations are in addition to those already appropriated for this work.

S. 1731—*Mr. George. To provide for the more complete development of vocational education in the several states.*

H. R. 5696—*Mr. Tillman. To provide for the further development of agriculture, home economics, and industry in America.*

These bills propose an annual appropriation of \$500,000 to be increased each year \$500,000 until the annual appropriation is \$6,000,000, half of which shall be used for agriculture and half for home economics by the Federal Board for Vocational Education under the same terms that apply to the

Smith-Hughes Act of February 23, 1917. There is also authorized a permanent appropriation of \$100,000 annually to enable the Federal Board to assist the states in a program of foremanship training. These appropriations are in addition to the sums already appropriated for this work.

S. 1822—*Mr. Reed of Pennsylvania. H. R. 246—Mr. Morin. To authorize the Secretary of War to transfer or loan aeronautical equipment to museums and educational institutions.*

By this bill the Secretary of War is authorized to loan to properly accredited colleges and universities for exhibition or instructional purposes any air craft, air craft parts, instruments or engines that have become obsolete, provided they will not be used for flying and that no expense will be incurred by the Government for the delivery or return of said property.

H. R. 7214—*Mr. Kelly. Authorizing the Secretary of War to dispose of obsolete aeronautical equipment to accredited schools, colleges, and universities.*

By this bill the Secretary of War is authorized to dispose of, without charge, except for transportation and delivery, to properly accredited colleges and universities for use in aeronautical courses any aircraft, aircraft parts, instruments or engines which have been declared obsolete by the War Department.

S. 845—*Mr. McKellar. Regarding the education and naturalization of aliens and the children of aliens, and for other purposes.*

This provides that no alien be permitted to reside within the United States for a longer period than five years without becoming naturalized; that no alien shall be admitted to citizenship without being able to speak English; that it is the duty of the judge to whom application for citizenship is made to examine personally each and every applicant concerning his knowledge of the government of the United States and his views on government and on anarchy or radical socialism and whether he has been a member of or frequents meetings that believe in or teach anarchistic doctrines. If so, the judge shall disallow the applicant's

petition. Every firm employing over thirty aliens shall provide them instruction in English; all children of aliens shall be taught in English-speaking schools and no children of aliens under sixteen years of age shall be permitted to work in mines, shops, factories, or plants. Any alien whose application for naturalization is denied shall be deported within thirty days after the refusal of the court to grant him naturalization.

S. 1171—*Mr. Fess. To create a national university at the seat of the Federal Government.*

This bill is identical with S. 1410 of the last session. The purposes of the proposed national university, as defined in this bill are: "First, to promote the advance of science, pure and applied, and of the liberal and fine arts by original investigation and research and by such other means as may appear suitable to the purpose in view. Second, to provide for the higher instruction and training of men and women for posts of importance and responsibility in the public service of state or nation, and for the practice of such callings and professions as may require for their worthy pursuit a higher training. Third, to cooperate with the scientific departments of the Federal Government, with the colleges of agriculture and mechanic arts founded upon the proceeds of the Federal land grant of the Act of 1862, with the state universities, and with other institutions of higher learning." The university shall not confer academic degrees but shall be open only to graduates of recognized colleges. The governing board is a Board of Trustees, consisting of the Commissioner of Education and 12 members appointed by the President for a period of twelve years. There shall also be an Advisory Council composed of one representative from each state in the Union. This representative shall be the President of the State University wherever such an institution exists, otherwise a citizen of the state appointed by the governor. All by-laws and general rules for the conduct of the university are subject to review by the Advisory Council. The Board of Trustees is authorized to accept gifts and legacies from private individuals. The sum

of \$500,000 is authorized to be appropriated for the use of the university for the fiscal year 1928-29.

S. 1436—*Mr. Harris. To make certain foreign language newspapers nonmailable.*

This provides "That every newspaper printed in a foreign language is hereby declared to be nonmailable; except that any copy of any such newspaper containing in an adjoining parallel column a true and complete English translation of the text of each column of foreign-language print, and any copy of any such newspaper which is subscribed for by, or intended for the use of, any governmental establishment, shall not be excluded from the mails as nonmailable matter under the provisions of this Act."

S. 1600—*Mr. Jones of Washington (by request). To create and establish a national United States Educational Peace Commission to promote peace by means of education.*

This proposes creation of a Commission of five with salaries of \$7,500 each and headquarters office in Washington, "to stimulate and organize educational activities in the interest of peace and create, promote and crystallize potent public opinion in constructive practical efforts for peace." An appropriation of \$200,000 per year is authorized.

S. 1855—*Mr. McKellar. To provide for cooperation by the Smithsonian Institution with State, educational, and scientific organizations in the United States for continuing ethnological researches on the American Indians.*

This authorizes the Secretary of the Smithsonian Institution to cooperate with any state or any educational institution or any scientific organization for continuing ethnological research among American Indians and the excavation and preservation of archaeological remains. The sum of \$20,000 is appropriated to permit the Smithsonian Institution to offer subsidies not to exceed \$2,000 each to any organization that will match the grant by a like amount and carry on an investigation in this field that appears meritorious to the Secretary of the Smithsonian Institution. All such cooperative work shall be under direction of the Secretary of the Smithsonian Institution.

S. 1892—*Mr. Keyes (by request). To provide for the world-wide extension of education by the cooperation of National Governments.*

Proposes creation of a commission of three to administer an appropriation of \$10,000,000 for "removal of illiteracy from all mankind, instruction in the applications of science and mechanics to the work of the world and the physical welfare of mankind or world health, international or world ethics, promotive of just and humane government the world over."

S. 1893—*Mr. Watson. To designate a building site for the National Conservatory of Music of America, and for other purposes.*

This provides that the Chief of Engineers under the Direction of the Secretary of War be directed to select a suitable site in the public grounds in the District of Columbia for a building for the National Conservatory of Music of America, that plans for such buildings be subject to approval of the Secretary of War and of the Fine Arts Commission, and that no work be commenced on said buildings until the National Conservatory of Music presents satisfactory evidence that it has sufficient funds to insure completion of the proposed building.

H. R. 140—*Mr. Fitzgerald. To establish a division for investigation of mentally handicapped children in schools.*

Proposes the establishment in the Bureau of Education of a division for study of the mental and educational needs of backward, mentally deficient and mentally handicapped children. Calls for an annual appropriation of \$21,000 to equip and operate this division.

H. R. 352—*Mr. Weller. To establish a National Conservatory of Music for the education of pupils in music in all its branches, vocal and instrumental.*

Calls for appropriation of \$150,000 to establish a National Conservatory of Music located where the Board of Regents may decide, with branches when practical in Florida or California, Washington, District of Columbia, or elsewhere. The Board of Regents consist of the President, the President

of the Senate, the Speaker of the House, and the chairmen of the Senate and House Committees on Education. There shall be an advisory board of directors consisting of 15 members, of whom 5 shall be musicians, five members from musical organizations, and five persons of high character and administrative capacity, each to serve five years. The Board of Regents shall have power to accept gifts, and to conduct, through the director general or other persons appointed by them, all the affairs of the Conservatory. The Director General shall prepare plans for cooperation with musical organizations, shall fix standards for admission, determine the number of students who shall have free scholarships, shall fix tuition fees and prepare a curriculum. The Board of Regents shall have power to grant degrees.

H. R. 5549—Mr. Gasque. To provide for the election of the Board of Education of the District of Columbia, and for other purposes.

This provides that the Board of Education of the District of Columbia shall consist of nine members who shall be chosen at annual elections, three at each such election and each to serve for three years. The bill then defines in detail the conditions and qualifications of voters, of setting up electoral precincts, of registration, and of the other mechanics of election which would have to be established for this sole purpose in the District of Columbia. The bill carries no appropriation.

H. R. 5693—Mr. Tillman. To create a Department of Education, to authorize appropriations for the conduct of said department, to authorize the appropriation of money to encourage the States in the promotion and support of education, and for other purposes.

This is identical with the abandoned Sterling-Reed bill which has been superseded by the Curtis-Reed bill.

H. R. 5705—Mr. Tillman. To create the National Board of Rural Industrial Schools for Mountain Children, and for other purposes.

Proposes creation of a national Board of three appointed by the President, each to receive a salary of \$4,000. This

board, after a preliminary survey shall establish and maintain twenty industrial schools for mountain children. One of these schools shall be located in the Third Congressional District in Arkansas. An appropriation of \$300,000 is authorized to carry out the project.

H. R. 5790—Mr. Green. To create a Department of Public Education, to authorize appropriations for the conduct and maintenance of said department, and for other purposes.

This bill merely expands the present Bureau of Education into a department with a Secretary of Education at a salary of \$12,000 and three assistant Secretaries. It creates an Advisory Board to help the Secretary make reserches. It also provides that a Department of Public Education shall not regulate the public school curriculum unless such regulation meets with the approval of the State Superintendent. An appropriation of \$500,000 is authorized.

H. R. 6976—Mr. Edwards. To foster and instill patriotism by furnishing United States flags to public schools and other educational institutions in America.

By this bill, the Secretary of the Interior is directed to ascertain the number and location of all public schools, colleges and universities and other educational institutions, and cause to be delivered to each a large United States flag at an expense not to exceed \$5.00 each. An appropriation of \$25,000 is suggested.

H. R. 7951—Mr. Gibson. To amend Sub-Chapter 1 of chapter 18 of the Code of Laws for the District of Columbia relating to degree-conferring institutions.

This prohibits the Recorder of Deeds from filing the Certificate of Incorporation of any educational institution chartered to give degrees without a license issued by the Board of Education of the District of Columbia. The Board of Education is authorized to employ the personnel of the public school system of the District for proper performance of its duties, which are that the Board assure itself that the applicant for charter is a respectable group and that they maintain suitable standards for granting degrees.

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Finding Potential Leaders

What Does a Leader Do?

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Leadership as a Response to Environment

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What Does a Leader Do?¹

PROGRESS in a republic is peculiarly dependent on the quality of leadership. How to discover and elect competent national leaders is one of the most vital and significant problems in American life today. Where there is no vision the people perish.

The problem has been attacked from many different angles. To me the practical aspects seem most important. We may get much pleasure and even a mystic thrill from an abstract discussion of the nature of leadership. But potential leaders will not thereby be discovered until workable methods of appraising leadership are evolved.

The development of practical methods of discovering potential leaders has been seriously handicapped by the confusion which still clings to the meanings of several important words. For example, by force of long habit and heredity, the word "government" suggests naturally to most people an agency for regulating the individual actions of men. Therefore, a government passes laws and maintains police force to enforce them. This aristocratic notion of government still predominates in our conceptions of our own Federal Government, as evidenced by the enormous number of laws designed to regulate personal conduct. Recent experiences have taught us that this conception of government does not apply in the United States.

On the other hand, if we carefully study the Constitution we see that all prohibitions therein, except the 18th amendment, prohibit government from interfering in certain vital respects with the freedom of the citizens. This indicates that our government was intended to be an organization for creating and maintaining conditions in which individual citizens might be free to do constructive work, each on his

¹ This paper and the one following were presented in the series of Conferences conducted by the Bureau of Personnel Administration, 420 Lexington Ave., New York, on the subject of "Business Management as a Profession." The entire series will be published by A. W. Shaw & Co.

own initiative. In other words, democratic government is essentially a facilitating agent to maintain stable conditions under which self-governing citizens can work to best advantage in achieving their individual ambitions. So long as the old conception of government remains predominant in our minds, the progress of American democracy will be hampered.

The same ambiguity clings to the word "leadership." Under its generally accepted inherited meaning, a leader is an autocratic super-man, a king in his particular field. He is in a class by himself, surrounded by a different class of beings known as followers. His actions are picturesque and attract wide comment. Typical leaders of this type are Alexander the Great, Julius Caesar, Napoleon.

With this type of leader in mind, discussions of leadership are apt to attempt to analyze the characteristics of such men and to set them down as the essential characteristics of all leaders. There are, however, leaders of a different type, such as Washington, Franklin, or Lincoln. Recently, H. G. Wells is reported as saying that in his opinion as an historian the greatest leader of all time was Christ. Clearly, before progress can be made in determining practical methods for detecting potential leaders, some less ambiguous criteria for their selection must be found.

The discovery of such practical methods is of still greater significance in our country because, in addition to the national and international leaders of the type mentioned, everyone here may be a leader some time in some particular group or in some particular occupation. Every individual is connected with various groups which are organized for various social and recreational purposes. In these a different person is usually the leader in each group. Besides, when the President of the United States is ill, he calls a physician and follows the physician's directions. The physician is temporarily his leader, and he is a follower. When your automobile refuses to run, you follow the instructions of a skilled auto mechanic. He is temporarily your leader.

With such complex inter-relations and interchanges between leaders and followers in our daily lives, it is of

supreme importance that the characteristic actions of leaders be well understood so that all citizens may acquire the best habits of leaders as far as practical. Progress in a democracy clearly depends quite as much on the quality of the sum total of all these minor leaderships as it does on the quality of leadership of the relatively few who become outstanding figures in politics, in religion, or in other fields. We shall more quickly approach the realization of the purposes for which this nation was founded as all these minor leaders in business, industry, politics, and the professions act, each in his own sphere, in accordance with the recognized practices of trustworthy leaders.

The situation in this matter reminds one very much of the situation that prevailed in science some two centuries ago. Then men were discussing the phenomena of science in such terms as caloric, phlogiston, magnetic aura, and the like. So long as this effort to control physical forces on the basis of metaphysical discussion prevailed, little progress was made.

Progress in the mastery of heat began when a thermometer was invented. This enabled men to measure the operations of caloric by means of the effects produced by caloric on material, observable things. The use of the thermometer did not stop arguments about the nature of heat. It merely made it possible for men to discover practical methods of controlling heat for useful purposes.

It was by the same process that Faraday brought the thing known metaphysically as electricity under control. When he discovered that by a certain arrangement of material things a measurable amount of copper was deposited in a given time, he started the processes which harnessed electricity. We still speculate about the nature of electricity and much benefit is derived therefrom. But electricity has become our servant because we deal with it because of the results it produces in tangible, material things.

In the second conference of this series, the effort was made to define the personal traits that are characteristic of leaders. The traits selected are:

- Sociability.
- Capacity for organizing groups.
- Responsiveness to current events.
- Flexibility in devising compromises.
- Histrionic ability.
- Willingness to work.
- Capacity to get things done.
- Self-confidence—courage.
- Personality.
- Intellectual and moral integrity.
- Independence of party.

I wonder how many of you can agree on this list of traits as those of a true leader. How many of you can agree on the definition of what is meant by sociability? If everyone here were to rate Theodore Roosevelt on his sociability, how well would the ratings agree?

This process of analyzing individuals into personal traits appears to be analogous to the process of dealing with science in metaphysical terms. It furnishes interesting materials for discussion. It gives the delight that comes from arguing about the mysterious and the unknown. But it has not yet led to practical methods of detecting potential leadership that are useful on a broad scale and give comparable results.

Some years ago there was much talk in colleges about training for leadership. Many colleges stated that leadership is the ultimate aim of their instruction. A great change has taken place in the past ten years. A search through some 250 college catalogs, revealed only 79 that make general statements of their ultimate purpose. Of these, only eight mention leadership as one of their aims. In his recent address to the student body at the opening of college this fall, President E. M. Hopkins of Dartmouth said:

Consequently, I have come to distrust the validity of much of what has been said, including much which I have said myself, in regard to its being the function of higher education to train for leadership. I ask permission to revise this statement to say that the first function of the college is to educate men for usefulness.

This turning of the colleges from leadership to usefulness as an objective of instruction suggests a different method of

discovering the capacities of men. For usefulness is appraised by what men do. It is a relatively simple and accurate thing to observe action and appraise its significance. I rather think this is the method most of us use in judging each other's characters.

It is interesting to note in this connection that great literature depicts character by descriptions of action. The Bible is a continuous series of stories of what men did. Plutarch's immortal work is a detailed record of activities. When Shakespeare wishes to portray character forcefully he does it in terms of action; as, for example, Mark Antony's speech at Caesar's funeral:

"He hath brought many captives home to Rome
Whose ransoms did the general coffers fill:
Did this in Caesar seem ambitious?
When that the poor have cried, Caesar hath wept,
Ambition should be made of sterner stuff;
Yet Brutus says he was ambitious;
And Brutus is an honourable man.
You all did see that on the Lupercal
I thrice presented him a kingly crown,
Which he did thrice refuse; was this ambition?
Yet Brutus says he was ambitious;
And, sure, he is an honourable man."

This passage from Mark Antony's speech is interesting also because of the manner in which innuendo is used to arouse suspicions of Brutus. Antony wished to create in the crowd a definite picture of Caesar's greatness. Therefore, what he says about Caesar is in terms of action. On the other hand, he wished to confuse the crowd and make them all suspicious of Brutus. To do this he applies epithets in the form of traits.

Among modern writers, Kipling has defined the objectives of a leader in his immortal poem "If."

If you can keep your head when all about you
Are losing theirs and blaming it on you;
If you can trust yourself when all men doubt you,
But make allowance for their doubting too;
If you can wait and not be tired of waiting, . . .

These obvious tendencies of colleges and these practices of good literature to portray character in terms of action suggests the idea that similar treatment of the problem of discovering potential leaders might yield practical results. For the purpose of testing this idea, I have written down twelve items that describe characteristic things leaders do. These are not presented as complete or final descriptions of the essential characteristics of leaders' actions, but as a sample of procedure in attempting to define the practical methods of appraising leadership. These are:

1. Sees a vision of achievement.
2. Grasps the significant features of the situation.
3. Determines what must be done to realize the vision.
4. Concentrates on the necessary work.
5. Sticks to the job.
6. Inspires others to help him.
7. Relates his work to theirs.
8. Enjoys the humorous side of things.
9. Pursues the vision as it recedes and changes.
10. Creates new ways to master difficulties.
11. Treats others as he would have them treat him.
12. Worships the Lord his God.

This method of appraising men can readily be tested by applying it in some particular case. Experience shows that it is very much easier to rate one's acquaintances in this sort of terms because this is really the process we all use in forming all of our judgments of one another. For some strange reason we have developed a habit of expressing our rating in terms of abstract traits, although we actually make the rating from observation of such actions as these. It is the jump from the observation of action to the expression of that observation in abstract terms that causes the horrible confusion in which we find ourselves with regard to fitting jobs to men.

It is easy to see why this is so. If we are to establish relations between jobs and men, they must both be resolved into factors of the same sort. In science we measure distance with a foot rule and temperature with a thermometer. It would be difficult to find anyone stupid enough to try to

measure temperature with a foot rule. Yet that is what we are doing in the personnel problem, when we try to evaluate jobs in terms of personal traits. By this process we introduce not only the inherent ambiguity of the indefinable traits themselves, but we try to describe objective action on material things in terms of spiritual qualities. To me, this is quite as bad as trying to measure temperature with a foot rule.

Another advantage of using the suggested form of personality analysis is that each rating is an estimate on the action of the whole man. In whatever anyone does he acts as a unit. All of his traits and personal characteristics synthesize in an action that is characteristic of him. It is not possible to characterize accurately such a composite action by considering only one isolated trait. It seems to me impractical to characterize such a unified action in terms of a combination of traits, because it is not possible to assign to each trait its relative weight in the combination. All of the confusion and ambiguity that inheres in the trait analysis disappears when action is appraised simply as action and jobs are analyzed into things that must be done. This process gives us a common system of units in which to appraise men and work, and makes possible the development of practical and workable methods of solving the eternal problem of finding the right man for the place, including the problem of discovering competent leaders in all walks in life.

C. R. MANN.

Leadership as a Response to Environment

IT SHOULD be our common understanding that we approach the subject of this evening's conference in the spirit of inquiry. The relation of environment to leadership is a field which research has not yet explored. In fact, it may be best to assume that to be the case with respect to the problem of leadership in all its aspects. One must even question whether there has yet been formulated a definition of leadership acceptable to the scientific mind. We should consider these conferences as no more than an honest effort to map out the field.

We do have, else our conferences would be a waste of time, a common understanding sufficient for conference of what is meant by the word leadership. A recent definition by Ordway Tead is acceptable for our purpose¹: "Leadership is the name for that combination of qualities by the possession of which one is able to get something done by others chiefly because through his influence they are willing to do it."

Now the good old English suffix *ship* plays a large part in this and practically all definitions and concepts of leadership. The suffix *ship* is always attached to a noun which identifies a person or agent to denote the state, office, dignity, profession, art or proficiency of such person or agent, with respect to the qualities indicated by the noun; for instance, *fellowship*, *horsemanship*, *friendship*, *leadership*. Such words always direct our attention to the person involved—the fellow, horseman, friend or leader—and to his qualities. As a result we consciously or unconsciously delimit the field of interest to the person and his characteristics. Most of our inquiries into leadership have had to do with attributes of personality.

¹ *Bulletin of the Taylor Society*, Vol. xii, No. 3, June, 1927, p. 394.

It is the hypothesis of some students that the person and his characteristics constitute only one part of the field which as a whole must be of interest to science. One cannot have fellowship without others having responsive fellowships and without attendant circumstances which generate and promote fellowship; one cannot possess horsemanship without horses with the capacity of being ridden and circumstances which made riding possible—sailors are not noted for horsemanship; and likewise there cannot be leadership unaccompanied by capacity to be led, and a situation in which leading of the led is essential or possible.

This indicated importance of environment suggests another reason why we have given principal attention to the leader and his traits; we experience such a constant succession of environmental situations calling for leaderships, and have such difficulty in finding persons with the particular leadership qualities demanded by the different situations, that we forget the importance of the situation because it does not have to be discovered, and focus attention on the qualities of leadership required, because they do have to be discovered. So pressing is this problem of discovery of leaders that we have even come to speculate on the possibility of making—or training—leaders. Perhaps both the discovery and the training of leaders would be promoted if we understood situations better. Perhaps one of the essential characteristics which makes one a leader is one's understanding of the situation.

The first hypothesis which has been presented is that any particular leadership situation plays a large part in determining leadership qualities and the leader for that situation. Generally those who hold that hypothesis hold another—that the qualities in an individual which a particular situation may determine as leadership qualities, are themselves the product of a succession of prior leadership situations which have developed and moulded them. This raises the question whether leaders are born leaders—are leaders because their forebears were leaders, or are born adaptable raw material which experience develops into leaders.

Science has not yet given us the answer to this question, but its data appear to establish the probability that leaders are not born leaders because their forebears were leaders under particular circumstances. This statement is not in agreement with the statements of the distinguished leader of the first of this series of conferences. His point of view is that genius, including the genius for leadership, is hereditary.

That point of view appears to rely upon those early researches into heredity which had to be content with the study of families, studies in which it was impossible to separate under control and measure the relative parts played by biological heredity and environment; and to ignore more recent biological research inspired by the discoveries of Mendel and others. Explained very broadly, these discoveries are that germ cells carry combinations of characteristics which are segregated and which reappear with differing relative degrees of dominance in offspring. "The broad meaning of the principles of Mendelism, as applied to an organization like man," says Pearl,² ". . . is that an enormously wide variety of new and different combinations of qualities is always possible, and may be expected to appear in some degree in virtually every mating. Some of these combinations may be good and some may be bad; some may be of such sort that they have their expression greatly influenced by the environmental circumstances under which their development takes place, while others will be capable of but slight modification by any environmental influence consistent with the continued life of the individual. In such a genetic situation it is clear that any attempt to predict what the bodily characteristics of the human offspring will be from an examination, however careful, of the bodily characteristics of the parents, or those of the ancestry generally is doomed to . . . failure. . . ." If this be true of physical traits, how much more true unquestionably of traits such as are involved in the personality of leadership.

Raymond Pearl, "The Biology of Superiority" in *The American Mercury*, Vol. xii, No. 47, November, 1927, p. 262.

I recommend that you read the article from which this quotation has been made. It is essentially a preliminary report of conclusions of a study to be reported in a forthcoming book. Pearl has studied the parents and children of all persons of such superiority as to have by their achievements secured at least a full page biographical notice in the current edition of the Encyclopaedia Britannica. The number of cases is 1,011. Pearl divides these cases into three classes: (1) Rulers, (2) statesmen, and (3) others. He then discards the first two classes as representing distinction derived in some part from positions held and the circumstances of their times. He concentrates attention on the third class—588 cases—as having distinction derived in the main solely from personal superiority, such as artists, singers and philosophers. Of sixty-three philosophers only two had fathers of such distinction as to leave a record, and only five had children who were gifted or distinguished. Of the eighty-five poets only three had fathers of sufficient distinction to be mentioned in the Britannica. "Certainly modern genetics gives no support to the view that the somatic characteristics of the offspring can be predicted from a knowledge of the somatic characteristics of the parents," says Pearl in his concluding paragraphs.

John Dewey, positivist, evolutionist, generalizer in terms of its meaning to life of the results of modern science, prefers not to use the term *instincts*¹ as implying traits or capacities definitely organized and adapted to specific uses, and employs instead the term *impulse* to indicate something more plastic and undifferentiated. Impulse becomes definitely organized and adapted as a result of continuing reaction to environment. "Impulses although first in time are never primary in fact (i. e., in conduct); they are secondary and dependent." "The *meaning* of native activities is not native; it is acquired."²

One is tempted to generalize in a similar manner concerning leadership. Each individual inherits combinations of

¹ "Human Nature and Conduct," p. 105.

² *Ibid.*, pp. 89, 90.

characteristics in the germ plasm which are different from the combination of characteristics inherited by any other individual, although there may be large areas of identical characteristics; these characteristics are called out, developed and adapted to the requirements of social adjustment according to the combination of influencing elements in the successive environmental situations; and if a situation calling for leadership appears, he will become leader if his combination of inherited characteristics, developed by his combination of environmental influences, has developed in him that total capacity for conduct called for by the leadership situation—and identified by contemporaries as leadership.

This makes leadership pretty much a matter of chance—the chance of the particular leadership situation finding in some individual the leadership qualities it requires. Of course situations change by such small increments that a leader once found may remain leader through a series of moderately changing situations; but let there come a large increment of change in the situation, presenting new group problems and requiring a new combination of characteristics for leadership, there is as yet no principle which will enable one to determine in advance what individual will be chosen by circumstances as leader.

This does not mean that an individual is not an original and independent source of creative power, and that a leader does not have a moulding influence on the environment and the led. It does not support a philosophy of fatalism. Just the reverse. It means that the individual should make himself an object of study, should discover, experiment with, develop and prove his particular combination of capacities, and then seek that creative opportunity—perhaps a leadership situation—for which he is adapted.

It has appeared worth while to dwell on these matters at this length in order to bring realization of the importance of research with respect to factors of environment as well as to traits of personality. It takes both to make leadership.

When we come to examine more closely the probable part played by environment in leadership, we find two aspects of

environmental influence which are sufficiently distinct to warrant separate consideration. There is the nature and influence of the environment which moulds an individual's impulses so that when a leadership situation presents itself, he rises to the responsibility; and there is the nature of and influence of the particular environment—the leadership situation itself—which demands those capacities and selects him who possesses them.

This gives us, therefore, before we can know much about leadership, three fields of study, of which data must be observed, classified and correlated; and perhaps four fields if we break the third into two: (1) Biological inheritance, in which painstaking research is being made; (2) environmental influence on the differentiation and development of inherited characteristics; (3) the general social and physical environment of a particular leadership situation; and (4) the led group as a distinguishable factor in the particular leadership situation.

In speaking of particular leadership environments I have naturally had in mind, because of the general title of this series of lectures, leadership situations in industry, which offers leadership, with rare exceptions, only to individuals of experience and maturity. In speaking of environmental influences which shape undifferentiated impulse into differentiated capacities for social use, I have had in mind that experience of the individual from birth until maturity and the outstanding particular leadership situation have been reached. This experience has been a succession of situations diverse in nature and influence, some of them of course leadership situations. We may first distinguish the period of infancy, in which, we are now beginning to believe, environment, though domestic and apparently narrow, plays a powerful part in establishing capacities and patterns of conduct. There is second the period of primary and secondary schooling in which a great new area is added to the environment—school life and contacts intermixed with family life and contacts. There is, third, the period of schooling away from home, in which the environment loses

the domestic elements; and finally the period of sole responsibility for livelihood and achievement with its great new area of experience. Each of these situations plays its particular part in shaping character and ability and in developing leadership capacity out of whatever biological characteristics and plastic primal impulse are raw material for such capacity. In the process of adjustment to these stages of environment there are brought out, or not brought out, or deadened, such simple or compound characteristics of individuality as physical and nervous energy, courage, initiative, purposiveness, enthusiasm, persistence, patience, imagination, mental alertness, knowledge of human nature, technical knowledge, and so on, to mention only part of the list to be found in enumerations of leadership traits. Study of the first manifestations and subsequent development in many individuals of any or all of these qualities is of great importance, and, I believe, of great importance also, the study of environmental forces which retard or deaden such qualities as these and establish what are known as inhibitions. How powerful a factor is the conventional system of parental discipline in creating inhibitions which neutralize the manifestation, exercise and growth of leadership characteristics; how powerful a factor in the same unfortunate way is the conventional system of organization and technique of the educational process? Do those who conform become leaders, or do those who struggle against conformity gather leadership strength from such struggles? Or does one type develop leadership characteristics for a particular type of leadership situation, and the other leadership characteristics for another type of situation? These are pertinent and as yet open questions. Experiments are being made which give opportunity for individual self-expression, with respect both to the environment of parental discipline and to the environment of education, but one questions whether the scale of experiment is large enough, or the observation, recording and classification of the pertinent facts in detail sufficient for important discoveries concerning leadership.

I feel strongly that the study of conduct in childhood and

youth, and of the situations which call for such conduct, will give us some guiding principles for a sane and profitable study of industrial or other form of leadership in the years of an individual's maturity. The situations of childhood and youth, though complicated enough, are less complicated than those of mature years, and, as the starting point of research, may be analyzed with more probability of profitable results.

It is a matter of common observation that where small children are brought together for the first time as a group, after a brief period of shyness play gets under way. Some one of the children responds to the situation and takes initiative. What is the situation which demands that particular characteristic of leadership, and what have been the earlier influences surrounding the child who manifests initiative. After the group has had experience in playing together, when shyness has disappeared and initiative becomes automatic, another individual may appear as leader in the group—an individual with imagination who conceives new games to play or new things to do. What are the characteristics of that leadership situation, and what the surroundings which developed the imaginative child? After a longer experience in group activity when neither initiative and imagination are so necessary, because the group has a repertory of games or things to do, still another may become leader because he knows best how to direct an organized game or other activity according to the rules. Here is a different leadership situation—different as to the situation minus the led, different as to the situation with respect to the led minus the rest of the situation, different as to the leader called upon to lead, and different with respect to the relations of all of these. This illustration drawn from childhood may be duplicated by an illustration drawn from the grammar school, high school or college experience of any of us. There would be promise of important results in explanation of leadership if numerous, simultaneous studies, coordinate as to the technique of observation and record of data, could be made of all kinds of leadership situations in early and late childhood, youth

and other periods of life, and the resultant data compared.

Giving attention now to leadership in the important affairs of society, we may distinguish in any leadership situation three outstanding factors that contribute to the leadership: the leader and his qualifications; the led, their qualifications for being led and their influence in choosing—in determining the kind of—leader; and the environment of leader and led, which creates the problem of leadership and plays its large part in determining the kind of leader to be chosen.

What has been said about the study of individual leadership capacity from infancy on, with respect to the influence of environment on its development, has a bearing on the study of the leader in a later leadership situation of social significance. A leadership responsibility of mature years is but an *n*th term in experience—the latest of a series of leadership situations. Individual capacity and suitability in a leadership situation may some time be pretty completely accounted for in advance if approached with knowledge of the development of such capacity in infancy, childhood and youth.

The led—their capacity and need to be led, and the part they play in determining the leader, and therefore in defining leadership capacity for the particular situation—is a phase of the problem to which little attention has been given. It has not yet become the object of organized, sustained research. Miss Mary Follett has emphasized its importance as a factor as have other students of group behavior, and Eduard Lindemann has given us some factual material in "Social Discovery." This book is essentially on the nature of group activity, its argument being based on an objective study of farmers' cooperative marketing organizations. Lindemann defines a leader as¹ "An individual whose rationalizations, judgments and feelings are accepted (responded to) by the group as bases of belief and action." And he immediately goes on to say, "The definition is double-barreled: It assumes that the leader acts as a stimulant to group action, and also that the group *accepts*, i. e., consciously

¹ "Social Discovery," pp. 222, 223.

acknowledges the rationalizations, judgments and feelings of the leader as its own. The implication here is that these very rationalizations, judgments and feelings of the leader may have been stimulated by the group. The leader is a stimulus but he is also a response." In another place he says:⁶ "The traditional theory of leadership, being a quality inherent in some member of the group, appears to be sound, but it is not adequately grounded. All of the evidence gathered in this study tends to substantiate the theory that the leader is nothing more or less than a symbol for what the group is not . . . what the group wants. . . ." And again he says:⁷ It (leadership) is a confusing term since it implies personal attributes and is inconceivable without a group. From the sociological point of view, leadership is an attribute of the group." And again he says: "What are the tests of leadership? When is the real nature of leadership revealed? What is the significance of the contentious leader in group behavior? When does the relation between the leader and group become sharply delineated? The answer to these queries is: when the group is in a *militant* mood; when the group is *struggling* to express its interests; when *disharmony* has arisen within the group; when the group is in danger of *succumbing* to its enemies; when the group is *defending* itself against its opposition; when the group is *striving* for a public evaluation of its interests."

I cite Lindemann's report at this length because it is the nearest approach of which I am informed to an intensive study of the nature and motivation of a group. It supports strongly the assumption that leadership is a quality of the led as well as of the leader, and that any study of leadership is incomplete if it gives attention only to traits of the leader.

In any leadership situation there is a third factor not in any way less important than the leader and the led. That is environment—the general situation. It is circumstances that unite individuals into a group which is something more than the sum of the individuals, give the group its motiva-

⁶ *Ibid.*, p. 259.

⁷ *Ibid.*, p. 159.

tion, desire, want, objective, program, or what not, and share with the group itself in determining what individual shall become leader—what combination of characteristics is demanded for the particular leadership. Environment has not only moulded the leader, and the separate individuals into a group, but it has also created the critical situation which brings leader and group together.

One can without much difficulty accept as an hypothesis the proposition that the differences with respect to personal capacities between historic leaders are no greater than the differences between the characteristics of the groups they led; and that the difference between the leaders or between the groups led is not as great as the difference between the environments—the respective civilizations, cultures and immediate social problems motivating group action. Environment generates a specific situation and a specific group motivated by a want or a purpose, and the nature of these determine what combination of capacities is essential for leadership. By trial and error, apparently, the personality is then sought which comes closest to representing the essential formula. If Kerensky is not sufficient, try Lenine, or Trotzky, or Stalin, or another. If a McAdoo is not adequate, try an Al Smith—or have we here a leadership situation in which the environment is so influx that it has not precipitated a distinct motivated group with a group formula of leadership qualifications?

Making the northwest available as a resource of industry required the Lewis and Clark type of leader; the pioneer problem of organizing access to these resources required a James J. Hill type of leader; such a problem of utilization of resources as is now presented in the Colorado mining controversy calls for a new type of leader. Whoever as leader solves such problems through leadership does it because he is possessed by the combination of qualifications which can solve it in the manner demanded by the logic of events.

This point of view is not at all new; it has been presented by historians, philosophers, poets and sociologists. The justification for emphasizing it tonight is that most or all

studies stimulated by current interest in leadership fail to take into account the necessity of studying the characteristics of the environment in which a leader becomes a leader as well as the biological, psychological and other traits of the leader as an individual.

What we should strive for is a great coordination of investigations of the nature of leadership, characterized as to its technique by observation, recording and classification of *items of conduct* involved in leadership situations, and with correlations of the following—and perhaps other—special lines of research:

1. The influence of the environments of infancy, childhood, youth and young manhood on hereditary characteristics. Does environment, including petty leadership situations, mould undifferentiated characteristics into specific capacities for leadership?

2. Socially significant leadership situations, with especial regard for—

- (a) The part played by environment in creating motivated groups which require leadership;

- (b) The creative part played by the group in response to the situation and to the tried or chosen leader.

- (c) The leader—his characteristics and the creative part played by him in response to the environment and the led group.

H. S. PERSON,
Managing Director, The Taylor Society.

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Annual Subscription, \$2.00

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The Eleventh Annual Meeting

THE eleventh regular annual meeting of the American Council on Education was held in the National Research Council Building, Washington, D. C., May 4-5, 1928. The reports of the Executive Committee and the officers printed herewith portray the progress made by the Council during the past year.

The meeting was significant because of its discussion of pending problems for the purpose of mapping future activities. From this point of view, the Chairman's Address on "Mechanical Power and Its Influence on Education in America" was timely and important. The rapid increase in mechanical power from a half horse-power per citizen in 1870 up to over seven horse power per citizen in 1926 presents a very real challenge to education. While this vast power increases the comforts of life, it also increases the dangers of serious misuse. The full text is printed in the following pages.

The second important topic was the standards of accrediting high schools and colleges. The matter was forcibly presented at the North Central Association meeting in March by Dr. C. H. Judd in a paper that was printed in the April number of the *EDUCATIONAL RECORD*. Chancellor S. P. Capen continued the discussion at the annual meeting. Not only are we outgrowing the very useful but rather mechanical standards approved by this Council in 1924, but the situation is confused by the rapid organization of Junior Colleges and the six-year elementary school. The structure of our system is in process of alteration, raising the definite question, What is and what ought to be the secondary education in the United States?

This question is of sufficient importance to endeavor to secure an adequate Federal appropriation to enable the Bureau of Education to make a thorough national study of the secondary school field. Dr. Capen endorsed the movement started by the North Central Association to seek such

an appropriation. The matter had already been presented to the Committee on Education of the House of Representatives by Dr. Judd and other representatives of the accrediting agencies in connection with the Hearings on the Education Bill on April 25-26. The Executive Committee of the Council had already endorsed this project and is cooperating in its realization.

As an illustration of the manner in which the Bureau of Education now conducts such surveys, Dr. A. J. Klein described the organization and operation of the study of the Land Grant Colleges which is now being made under a similar special Federal appropriation. The invitation to make the study came from the Association of Land Grant Colleges. The Bureau of Education accepted this invitation and requested a special appropriation from Congress to cover its expense. As soon as this was granted, Dr. Klein visited personally forty of the Land Grant Colleges and discussed the nature and content of the survey with many administrative officers and members of the faculties. The suggestions received were tabulated and classified into about twenty major lines of activity that ran through all of the institutions.

Having determined these major headings of the survey, the institutions were invited to nominate individuals who were particularly competent to take charge of each section of the survey. On the basis of these nominations, small technical advisory committees were formed and these developed the detailed questions that the study should seek to answer. These questionnaires were then criticised in detail by members of the advisory committees who were brought to Washington for that purpose. When the questions were thus agreed to, each member of the committees was assigned to study a certain number of institutions within his immediate territory. In this way, the outline of the study was developed by experts in their respective fields and the work of observation and collection of data was decentralized in a most effective manner. In addition to these technical advisory committees, there is a national advisory committee

to advise concerning policies of the survey as a whole and to review the report before its publication. Each Land Grant College also has a local survey committee of its own which cooperates with the technical advisory committees in securing at each institution the desired data. This local committee also is guided to study the local situation from a national point of view because of its relation to the survey as a whole. If a national study of secondary education were undertaken, it would be organized on similar lines of decentralized responsibility with centralized cooperation.

In the discussion following this report, the importance of stimulating the Federal Government to greater activities as a research and information center in education was emphasized. It was pointed out that there are already in operation some \$18,000,000 of Federal subsidies to the states on the 50-50 principle for support of vocational education. Bills are pending increasing this by about \$6,000,000 per year. Yet this form of Federal grant carries with it real control of education in the states, while increased support of research and information service cannot possibly do so. The question was also raised whether it is not wise national policy to insist that such far-reaching surveys of American education be made under public control.

As a final chapter in this discussion of the national challenge to education, Dr. John H. MacCracken presented the report of the Committee on Federal Legislation. He told of the hearings on the Education Bill that have just been completed by the Committee on Education of the House of Representatives. Dr. MacCracken's report will appear in full in the October number of the RECORD.

At the close of the morning session, the Chairman, Dr. Walter Dill Scott, appointed, as a nominating committee, President Parke R. Kolbe, the Right Reverend Edward A. Pace, and Commissioner A. B. Meredith of Connecticut.

At the afternoon session, Dr. R. H. Fife presented the final report of the Committee on the Modern Foreign Language Study. The work of this committee is drawing to a close. Its reports are in press and should be issued by fall.

The third major topic of the meeting, Personnel Methods, was introduced by Dr. D. A. Robertson in a report of progress of the work of the Committee on Personnel Methods. This committee has already developed tentative personal record cards, achievement tests and personality rating scales. These are all ready for experimental tryout next fall. A full description of them is given in the accompanying Supplement of the Educational Record. Additional copies of this may be secured from the office of the Council. So far as personnel methods of handling students are concerned, significant progress has been made.

Discussion of the Enlistment and Training of College Teachers was introduced by Dean O. E. Randall of Brown University. He described the activities of the Association of American Colleges and the appointment of a central committee of the Council in accordance with the vote of the Council at the last annual meeting. This central committee has prepared a form for recording the characteristic activities of teachers and is inviting individual institutions to cooperate in discussing this form, which was printed in the April number of the EDUCATIONAL RECORD. Attention of the members of the Council is again called to this invitation and to the importance of cooperation in this fundamental enterprise.

The subject of industrial cooperation was introduced by Gen. R. I. Rees of the American Telephone and Telegraph Company. He described some of the difficulties met with by industrial firms in finding suitable candidates for employment among college graduates. The attitude of the colleges in this matter has changed in the past five years, in that college authorities take much more responsibility for proper placement of their graduates. This is leading to more active effort on the part of colleges to discover what are the requirements of industry and to help classify students with reference to occupational bent as an aid to industry in finding the right men for its work. General Rees commended the colleges on their cordial assistance in organizing interviews for industrial representatives and recognized the difficulties

which the institution faces when a large number of industrial representatives desire to interview the men of the senior class. In selecting men, the Telephone Company places emphasis on scholarship, extra curriculum activities and previous earnings of the students. Ratings are also made by the industrial representatives on personality, reliability, and mental capacity. These three are considered most significant. It was, however, desirable that some means be devised for discovering the underlying motives of a young man's life. The personnel methods now being developed offer hope for the achievement of this end.

Mr. Samuel S. Board of the Yale Placement Bureau stated that two hundred business firms sent representatives to Yale to interview the senior class last year. Though the practical difficulty of arranging such interviews was great, the greater objection was that many of the leading students received legitimate offers from a large number of firms. This produces an unfortunate state of mind in the graduate and tends to place the college men only in large companies. Better organization of this entire phase of industrial relations is seriously needed.

Progress on the fourth major project, industrial cooperation, was reported by Dean C. E. Hewitt. Already descriptions of about 4,000 different jobs have been sent the Council by twenty-eight different industrial organizations. Most of these are in the pattern job specification form so that they are comparable with each other. This is a sufficiently wide variety to warrant analysis to discover the common elements of practice and procedure needed for educational guidance. The significance of institutional membership in the Council is not yet clear to business organizations. Some express fear that colleges, if given job specifications, will attempt to train specialists for industry. Others still seem to regard college men as dreamers who cannot yet talk in terms that industry understands. The Executive Committee considers it wise not to hurry business into membership until it has grasped the real significance of membership so that the new relationship will be mutually beneficial in a thoroughly sound way.

Events of the past year show that some sort of cooperative organization between business and education will be established in the near future. Conditions in business are changing rapidly, and each year sees a greater need in industrial management for young men capable of the disinterested imaginative thinking which it is the chief function of the university to develop. Business men have known for some years that college graduates have very erroneous conceptions of how business is operated and what its fundamental economic procedures are. The efforts made by Public Utilities companies to correct these shortcomings by direct action on the universities themselves has not been approved by the Federal Trade Commission, because the methods used seem to smack of propaganda. Yet the situation demands that schools be reliably informed in a thoroughly scientific spirit concerning present business practice. This is one of the chief objectives of the Council's plan of cooperation with industry and the professions. It aims to secure reliable records of usage of the world's work, but insists that educators alone be responsible for the manner in which that information is used for educational purposes. The further development of this project is the most fundamental enterprise in which the Council is now engaged.

Delegates of nineteen constituent members, and representatives of twenty-six institutional members were in attendance, besides a number of guests.

The Director's budget was approved as printed on page 158. The proposed amendment to the constitution, reducing the minimum dues for institutional members other than educational institutions from \$500 to \$200, was also approved. President Frederick B. Robinson was elected Chairman for the coming year, and Messrs. C. H. Judd and Guy E. Snively were elected members of the Executive Committee for a three-year term. The full list of officers and members is given on pages 179 and 183.

The Rapid Development of Mechanical Power and its Influence on Education in America¹

Chairman's Address, May 5, 1928

THE development of mechanical power has been preceded by that of slave and animal power. In prehistoric times, human slaves, work animals and mechanical power were probably unknown, or at least of but little significance. During recent centuries it is practically impossible to find an illustration of a civilized man existing without slave, animal, or mechanical power. Fiction writers have attempted to depict for us such a situation, and of all these descriptions probably the best is Defoe's "Robinson Crusoe."

According to the narrative, Robinson Crusoe was wrecked on an uninhabited island in the tropics, where he lived a solitary existence for over twenty years, providing with his own hands food, clothing, a home, and protection from enemies. The author decreed that the island should be fertile—many types of fruits and vegetables were indigenous to the soil, game birds were numerous, fish were had in the mountain brooks, edible turtle frequented the shore, and wild goats, easily tamed, were found in abundance. Clothing was required only for protection, and was obtained in the main from goat skins. A home was constructed out of a cave and a roof covered with palm leaves. The necessity of protection from the enemies was reduced to a minimum.

After meanly subsisting as the sole inhabitant of the island for two decades, Robinson Crusoe became the fortunate possessor of a slave whom he called Friday, a young man of extraordinary vigor, of untiring industry and of complete devotion to his master. In certain important activities he proved to be even more skillful than his master, and from this time on for a period of years Robinson Crusoe

¹ This address will appear as a chapter in a volume entitled "New World Series," published by D. Van Nostrand Co.

supplemented the labor of his own hands with that of Friday's, thus utilizing one slave power in the performance of all his tasks. To feed himself and Friday it was necessary to double the size of the grain fields, to increase the size of the flock of goats, and to catch more game; however, the amount of labor required to supply the needs of two was not twice as much as to supply the needs of one, so some surplus provisions were stored up, some surplus time was made available, and some relief was obtained from the incessant toil which for twenty years Robinson Crusoe had been compelled to endure. This story is fiction, but it depicts what one man might accomplish alone in an ideal environment, and what he might accomplish when he possessed one slave.

Such an environment might be ideal, but it does not correspond to the facts as made apparent by even a casual study of history. Man is supposed to have existed one thousand centuries preceding the historic age, but the original environment under which these early peoples of the earth lived was never so favorable as was that of Robinson Crusoe's island. Rarely was there a land that had sufficient fertility to provide adequate food for all, and in no land was there even approximately freedom from enemies, whether we have in mind disease producing germs, venomous snakes and vicious beasts, or, most of all, hostile neighbors. During this prehistoric age it is believed that man made practically no progress in the utilization of power other than that of his own hands.

Since the beginning of historical times there have elapsed some sixty centuries, during the first forty of which four peoples surpassed all others in the extent to which they developed power—the peoples of Babylonia, Egypt, Greece and Rome.

In ancient Babylonia the climate was extraordinarily favorable; the land was fertile, and at certain periods there was relative freedom from enemies. The number of slaves per freeman was probably larger than in any land in any preceding age, but it does not appear that the number of slaves

was even approximately as great as the number of freemen. The people of ancient Babylon made use of oxen, of asses, and possibly of horses to some extent, but they seem to have used camels, elephants, waterwheels, sailboats and other mechanical forces but little, or not at all. The hands of the freemen, supplemented by the work of slaves and of oxen and asses, enabled the people to produce a surplus of the necessities of life, thus releasing some freemen from the drudgery which was common to all other peoples, with the result that many of the freemen thus released developed into priests and men learned in various fields. Thus an advance was made from magic to a crude form of religion, from astrology to a crude form of astronomy, and from a spoken language to a written language which was recorded on clay tablets. The wheel as a burden bearing device was invented, iron tools were fashioned, and weight in silver first appeared as a medium of exchange.

In ancient Egypt the climate was good, the land fertile, and there was relatively immunity from hostile neighbors. The number of slaves became as great per million of population as in Babylonia. The Egyptians used the ox and the ass, even the sheep to tramp the grain into the prepared soil at seeding time; they made use of the sailboat and possibly of the water-wheel. This relatively extensive using of slave, animal, and mechanical power resulted in a surplus of goods and of leisure; so a very large priestly and noble caste was developed by which progress was made in civilization. There was an advance from polytheism to monotheism and from polygamy to monogamy. A new form of written language was produced, based on a real alphabet and recorded, not on clay tablets, but upon papyrus rolled into convenient scrolls. Progress was made in astronomy and in architecture, and here for the first time the plow was drawn by domestic animals and the boat was propelled by a sail.

In ancient Greece the climate was not as favorable, the fertility not as great, and the freedom from hostile neighbors not as assured as in Egypt and Babylonia. There were

apparently more slaves in Greece in proportion to the number of freemen than had been held by any other peoples in any other land, their number at one time probably equaling that of the freemen. Work animals appear to have been less used in Greece than in Egypt or in Babylonia. The force of the wind was, however, utilized more extensively for sailboats than had been the case in Egypt. This greater employment of slaves and of the sailboat resulted in a great surplus in goods and in leisure, and the releasing from drudgery of men of outstanding genius to whom all later generations owe a debt of gratitude. They gave dignity to the human individual; they developed the ideal of the beautiful, the good and the true; they made distinct progress in the development of all the arts and of all the sciences.

In ancient Rome the climate was not, in general, as favorable nor freedom from hostile neighbors as complete as in Greece, Egypt, or Babylon, and slaves were possibly not as numerous as in ancient Greece. However, the slaves, the domestic animals and the mechanical forces were better organized and were more efficiently utilized and, here again, a surplus of goods was produced, thus releasing many individuals from the necessity of drudgery. Although much of the energy of those thus released was used in conquest, and although luxury sapped their vitals, progress was made in law, in government and in other forms of social control.

During the last four thousand years B. C. some nations other than Babylon, Egypt, Greece and Rome may have possessed some slaves, utilized some domestic animals for work, and made some use of wind and water power, but such uses are believed to have been small. So far as we can judge, in all prehistoric times and in the last forty centuries B. C. only four peoples made relatively extensive use of power, and these are the four which made human progress. The nations that failed to develop power failed also to make progress in civilization. I am confining my attention to peoples directly affecting occidental civilization.

In considering the power available for various peoples in various ages it would be convenient to have a common term

that might be used to embrace all such power. As a matter of fact, the term "horse power" is such a term; for all other forms of power are equated in terms of horse power. According to the engineers a horse has power sufficient to raise 33,000 pounds one foot in one minute while twenty-five slaves, including men, women and children, have the power sufficient to accomplish this same task. It is a common custom to rate in terms of horse power all our steam engines, gasoline engines, and all other forms of mechanical power.

This common unit of measurement makes it possible to add together such dissimilar units of power as slaves, horses, and windmills. Each slave is regarded as possessing .04 of a horse power; the average windmill as possessing .5 of a horse power. The sum of power exerted by 25 slaves, 1 horse, and 2 windmills is 3 horse power.

When we estimate the slave power, the animal power, and the mechanical power of peoples we find it most convenient to give the total in terms of horse power.

During the 1,000 centuries preceding 4,000 B. C. there is believed to have been practically no use made of slaves, of work animals, or of mechanical forces for purposes of work. Accordingly, the amount of horse power available to the individual was 0.

From 4,000 B. C. to the age of Christ numerous nations made some use of slave power, less use of animal power, and even a lesser use of mechanical power. At certain periods in Babylon, Egypt, Greece and Rome each freeman may have possessed on an average as much as one human slave which would be the equivalent of .04 of a horse power. In addition to one slave, each freeman may, on the average, have possessed as much as a maximum of .04 of a horse power constituted by the combined power of all the animals and mechanical forces actually available for him. The total of the average of this human slave power, animal power and mechanical power is .08 of a horse power. Since at least half of the power was slave power, it is probably better to express it not as .08 of a horse power, but in the equivalent term of 2 slave power.

At the peak of prosperity in Babylon, Egypt, Greece and Rome the average freeman possessed power possibly the equivalent of 2 slaves available for his use. During the first eighteen centuries of the Christian Era the utilization of power increased in many of the nations of the world, but most of all in Europe. By the middle of the nineteenth century this utilization of power had so increased in the United States that it found a place in our census of 1869. The entire human slave power had been eliminated by the Civil War. According to this census the animal power was slightly in excess of the mechanical power. The number of horses, including mules, asses, and oxen, was approximately 10,000,000. The power of all water-wheels, steam engines and other types of mechanical power was less than 10,000,000 horse power. This total of approximately 20,000,000 horse power was distributed among the 40,000,000 of the population. On the average, therefore, every man, woman and child in the United States possessed .5 of one horse power or the equivalent of 12 slaves.

No ancient peoples had developed more than the equivalent of 2 slaves per freeman. The people of the United States had by 1869 developed the equivalent of 12 slaves for the use of each individual.

The increase in power had only just begun in 1869. The rate of increase is accelerating, so that the total of available or installed power is today greater than any of us realize. A tabulation of the potential installed power in the United States based on the best available data is shown on opposite page.

The accumulation of power is a phenomenon peculiarly American as it is much greater here than in any other nation. The amount of power accumulated by the people of England is, per inhabitant, only one-third as great as it is in America. In Germany it is less than in England. In France it is less than in Germany. In all other nations it is still less. In western Asia, in central Africa and in certain other lands, there is practically no accumulation of power.

Not only has America accumulated 175 slave power per

Kind of power	No. of units	Total H. P.	Average slave power per American
Horses and Mules.....	21,000,000	21,000,000	4.37
Windmills.....	1,000,000	500,000	.10
Water Power.....		3,700,000	.77
Vessels of U. S. Navy.....	776	10,495,419	2.18
Power Used in Mines.....	21,280	6,723,788	1.46
Power Used in Mfg. Plants.....		35,773,000	7.45
Power in Central Stations.....		32,000,000	6.66
Stationary Engines on Farms.....	2,500,000	10,000,000	2.08
Tractors on Farms.....	568,000	13,232,000	2.75
Electric Power Plants on Farms..	300,000	900,000	.19
Locomotives.....	70,000	149,310,000	31.10
Automobiles.....	22,000,000	550,000,000	114.58
Miscellaneous:			
4,936 other vessels of the U. S. Merchant Marine; numerous additional boats; 350,000,000 lbs. dynamite; 130,000,000 lbs. "B" blasting powder; 16,935,918 telephones; telegraph; radio broadcasting stations and receiving sets; stationary engines not on farms; <i>rough estimate.</i>		10,000,000	2.08
Total.....		843,634,207	175.77
Average H. P. per American.....			7.03
Average Slave Power per American.....			175.77

inhabitant, which is three times that of any other people, but the rate of accumulating this power is increasing faster in America than in any other land. The American who today possesses the equivalent of 175 slave power will probably possess double that amount in a few years. He is also constantly improving the methods, the conditions and the implements for availing himself of this power.

According to our census report of 1869, over 50 per cent of our power was animal and less than 50 per cent of it mechanical, but at the present time it is approximately $2\frac{1}{2}$ per cent animal power and $97\frac{1}{2}$ per cent mechanical power.

This power in America is distributed in a democratic manner. In ancient times power was concentrated in the hands of the few, and was used primarily for the benefit

of the few. One ruler of Egypt used the labor of 100,000 slaves for twenty years in building a pyramid. The purpose of the pyramid was to provide an appropriate burial place for himself. In America power is possessed by the many and used for the benefit of all. Henry Ford has possessed more power than any other American, but unfortunately for many would-be customers he is frequently sold out. Next to the automobile, the steam locomotive is the greatest source of power. But the locomotive is by law made into a "common carrier." The third greatest source of power is that used in manufacturing plants, but here it is used to remove drudgery from our industrial workers. The fourth greatest source of power is the central station, but the power here generated is used for such altruistic purposes as transporting the poor and illuminating their homes.

It can in general be said that power applied any place in America benefits every citizen of the land; that every tractor used on a farm increases the surplus of our food supply; that every truck helps in the distribution of commodities; that every additional unit of power used in a manufacturing plant improves the quality and reduces the price of merchandise; that every passenger train and every pleasure car broadens the vision and increases the solidarity of the American people.

Mechanical power is a mysterious force that cannot be visualized and therefore cannot readily be appreciated. Slave power and animal power are not so mysterious, can be readily visualized, and can, therefore, be more readily appreciated. If we should imagine that the seven horse power per inhabitant was all in terms of human slaves and of work horses it might be equated by 125 slaves and 2 horses for each man, woman and child in America.

We can readily imagine a situation in which the school boy has at his disposal and at his service 125 human slaves and 2 horses. We can imagine a situation in which the boy has distributed this available power as follows:

One horse and 75 slaves might be utilized to provide food,

clothing, shelter, and protection. The remaining 50 slaves might be used as pedagogues and the one additional horse might be at their disposal. In ancient times a distinguished child may have had one or even two or three pedagogues, but each modern child might have fifty, each a specialist in some phase of child development.

We can readily imagine a situation in which an industrial worker has at his disposal 125 slaves and 2 horses. One horse and 75 slaves might be used to provide food, clothing, housing, protection, entertainment, and all cultural and other needs. One horse and 50 slaves might be set aside for cooperation at his industrial task. In transporting and lifting any heavy object he would add to the strength of his own hands the strength of one horse and 50 slaves. In welding metals or in any industrial activity in which blows are to be struck, a great hammer might be raised by the horse or by the 50 slaves. In work at the anvil, to his blow might be added the blow of each of the 50 slaves. In any task in industry that he might pursue his working capacity would be increased 25 fold by the work of the horse, and would be increased 50 fold by the use of the slaves.

We can readily imagine a situation in which a criminal has at his disposal 125 slaves and 2 horses. He might utilize one horse and 75 slaves to provide all the customary requirements of life. He could then hold his one horse and 50 slaves in reserve to assist him in his criminal activities. The horse might provide for him speed in arriving at the place where a theft was to be attempted, and in providing for his "get-away." The slaves might be used as spies, as confederates, as blinds, and in various other ways that experience might prove as effective in making crime profitable and safe.

We can readily imagine a situation in which a philanthropist has at his disposal 125 slaves and two horses. He might utilize one horse and 75 slaves to provide the customary requirements of life. He could then hold his one horse and 50 slaves in reserve to assist him in his philanthropy. The

horse might provide transportation for delivering his benefactions and to relieve the poor of some of their many burdens. The slaves might keep him informed concerning the merits of appeals for bequests, for investigating the results of benefactions already made, and for any other purposes that might increase his service to his fellow men.

We can readily see that a child, an industrial worker, a criminal, a philanthropist, and any other individual would be profoundly affected if there were available for each 125 human slaves and two horses. We cannot readily see that they are equally affected by the possession of great sources of mechanical power. It is difficult to realize the effect such a concentration of mechanical power has had on education. In an attempt to realize this effect, help may be had from a consideration of the effects this power has had on such fundamental human institutions and conceptions as economics, industry, morals and religion.

The democratic distribution of power is producing striking *economic* changes in the American people.

The possession of power and the acquisition of wealth go hand in hand. Historically the average man possessed but little power and accumulated but little surplus of this world's goods. An appreciable proportion of the human race lacked even the necessities during unfavorable seasons. There was a lack of nourishing food, of warm clothing, and of decent living quarters. Poverty was general, and such a poem as "Over the Hill to the Poor House" had a vivid meaning to our ancestors of even a generation ago. The average citizen of America today possesses great power and shares in the benefits of much more. He not only has unprecedented wealth but he has even more credit. He buys appetizing food and fine raiment. He lives in quarters that contain luxuries unknown to the aristocrats of former ages. He possesses a surplus of this world's goods and may therefore be spoken of as a rich man. He is possessed of all the opportunities, and all the responsibilities, of all the ambitions and all the temptations of the rich.

The accumulation of power, and particularly of mechan-

ical power, is resulting also in profound *industrial* changes in our people.

We are told that the coming of the machine has destroyed the dignity of labor; that the monotony of tending a machine deadens the interest and the initiative of the workers. Such an interpretation is unwarranted. The machine relieves the worker of the monotony of toil. It enables the machine tender to accomplish in eight hours what would otherwise necessitate the drudgery of many workers from ten to fifteen hours a day. The machine converts many workers from drudges into artisans, and converts a few from drudges into artists. The gnarled hand, the halting gait, and the stooped shoulders have ceased to be a common characteristic of the industrial worker. The machine has reduced the hours of daily toil, has definitely added dignity to labor, and has immeasurably improved the status of the working man.

The great accumulation and democratic distribution of power is accompanied also by profound *moral* changes.

The lack of power encourages a double standard of morality—one standard for our treatment of the home folk and quite another standard for our treatment of foreign folk. Power has given us such improved forms of transportation and communication that this double standard is waning. Provincialism under the guise of patriotism is dying hard, but world-mindedness is developing, and the single standard of morality is winning converts.

The accumulation and democratic distribution of power force us to consider as immoral certain customs that were universally approved where there was no great accumulation of power, or where it was not democratically distributed. Among such customs are polygamy, slavery, and the consumption of intoxicating beverages.

Polygamy has been common where there was a relatively great accumulation of power in the hands of a few. It was difficult for a maiden to see that she was immoral if she chose to be the second wife of a lord rather than the only wife of a serf. It was difficult for the lord to see that he was immoral if he shared his abundance with a second wife and did not

permit her, as the wife of a serf, to endure a life of drudgery. A democratic distribution of power seems to be necessary to enable us to consider polygamy as immoral.

Slavery was common, and approved in all lands in which it was regarded as necessary to the welfare of the freemen. In prehistoric times the conquered were put to death. In early historic times the conquered were frequently killed, but occasionally they were kept alive as were the conquered animals. It was found that these conquered enemies could be used for certain types of menial work, and hence they were preserved and used as slaves. The conqueror considered only two alternatives—either to kill or to enslave. It was difficult for the conqueror to see that his most generous alternative was immoral. Those who enslaved and those who used slaves never regarded slavery as an immoral institution until after there was made available to them a more effective form of power. The democratic distribution of great power has removed the occasion for perverted vision, and today for the first time the rising generation in America considers slavery as an immoral custom.

The consumption of intoxicating beverages is as old as polygamy and slavery and has been even more universally approved. In some lands drinking was an act of worship. Where poverty and misery is great, funds and time are not available for securing and for consuming great quantities of liquor, even though the desire to escape the realities of life furnish a good excuse. Furthermore, in such a land the intoxicated man is not likely to do much damage. In a land in which there is great power and great wealth, drinking might become excessive. In such a land the intoxicated man may wreck a train or commit injury without limit to his fellow men. As might have been foreseen, the first national prohibition regulation was put into effect by the railroads. They were the part of our environment in which there was the first great accumulation of power. It takes a sober man to run a high-powered machine. Intoxicating liquor became a greater potential menace in America than in any other land, and gradually became considered not

merely as an economic and health problem, but also as a moral problem.

The accumulation and the democratic distribution of power is also changing the *religious* ideals of the American people and the fundamental motives to which they respond.

A people without power is inclined to conceive God as a great potentate who demands humility, patient endurance and sacrifices. For them the most impelling motive to action is the avoidance of pain. Their greatest concern is to escape such evils as hunger in this life and eternal punishment in the life to come. A people possessing great power is inclined to conceive of God as the Heavenly Father who causes all things to work together for good. For them the most impelling motive is pleasure. Their greatest concern may be to acquire great possessions in this world and eternal bliss in the world to come, or else to add to the well-being of their fellow men and to merit enduring social approval.

To a people lacking power, poverty may seem to be a virtue and the life of penury and sacrifice may be regarded as the highest form of religious life. To Americans the possession of riches may be regarded as a sacred trust and a life of generous service as the highest form of religious life.

To a people lacking power this world is a place of labor and of sorrow. Consolation can be had only in the thought of another world—in a New Jerusalem, a city resplendent in jewels and precious metals. To Americans this present world offers infinite possibilities. Their ambition is not merely to prepare for a future world but to make the most of this by changing it into an ideal abode.

Any factor that greatly modifies our economics, our industry, our morals and our religion would, of course, affect our *education*. No attempt will be made to present a summary of the effects the democratic distribution of great power has had upon our education but two such effects will be cited, one each based on the two sources to which power has been applied.

Power has been used to increase human contacts or as a labor saving device. In each of these particulars it has affected education.

Human contacts may be increased by increased travel or by increased communications. The ox-cart, the saddle-horse, the stage-coach, the rowboat, the sailboat, the steamboat, the passenger train, the automobile, the motor-bus, and the aeroplane have all in turn increased travel. The telegraph, the telephone, the radio, the wide circulation of books, magazines, and newspapers, the cinema, and the foreign guest have all increased our communications beyond those that are secured by travel alone. Increased travel and increased communication have direct educational value, but they have indirectly modified our institutions of formal education. The motor-bus has made possible the rural township high school. The railroad and the steamship have made hundreds of American colleges and universities national and even international institutions. At each of these institutions of higher learning are found students from all of the 48 states, and from all the more important foreign countries. For the classrooms, the libraries and the laboratories in our schools we select teachers, books, apparatus and supplies from our entire social environment. Helpful ideas and improved forms of administration are adopted by distant peoples. The pedagogical ideas of John Dewey and the organizations of the school system of Winnetka, Illinois, are having great influence in the schools of Russia.

Power applied to increased travel and to increased communication has multiplied the results of informal education and has enriched the aids to instruction, added new methods of teaching and widened the horizon of institutions of learning. The single textbook, the memoriter method and the provincial institution are no longer characteristic of formal education.

Power applied to labor saving devices has changed our educational theory and practice even more than has improved methods of travel and of communication. Historically, the peoples of each nation might be thought of as consisting of two classes—the laboring class, which was large, and the leisure class, which was small. The laborer was compelled to give all his energy to his menial task. He has practically

no leisure and was assumed to have no intellectual interests. The only education appropriate for such an individual would be definitely vocational. The gentleman of the leisure class looked upon work as degrading and desired to perfect himself only in those activities that had to do with the use of leisure. For him, the only appropriate form of education was definitely and specifically cultural.

The vocational training of the worker demanded merely informal education, the cultural training of the gentleman, formal education. In America the informal vocational training was provided primarily by actual employment which occasionally was dignified by the term of apprenticeship; the formal cultural training was offered in our grammar schools, academies and classical colleges.

At one time we were in danger of having a two-fold system of education—one for the children of the workers and another for the children of the leisure class. Fortunately we had no hereditary aristocracy to whom we might entrust our cultural interest. We believed thoroughly in the importance of culture, but since we were almost all working people we insisted that every pupil of the land should have an opportunity to acquire the rudiments of culture before he became absorbed in his life calling. Such rudiments of culture would of course be of special value to those who were blessed with leisure in later years.

Today the sharp contrast between vocational education and cultural education is vanishing. In general it may be said that every laborer has much leisure, and every gentleman has an occupation. Each needs practical vocational training to enable him to attain success in his occupation. Each needs formal cultural training to enable him to develop into a more perfect specimen of manhood. Accordingly, we are attempting, so far as possible, to provide a vocational-cultural education for all our youth. Every type of educational institution and every course offered find it necessary to be supported by an educational theory based directly or indirectly on both its vocational and its cultural advantages. The advocates of the study of such cultural

subjects as the classical languages stress the vocational value of these studies. The advocates of economics and of the natural sciences stress the cultural value of these disciplines that were formerly despised because they were believed to have exclusively vocational value.

In our thinking there has been a sharp contrast between school and work, and a belief that any attempt to mix them would dilute and ruin both. Graduation or commencement was the day when schooling ended and work began. The hours of labor were so long, so intense, and so exhausting, that no opportunity was offered to the laborer to continue the study of any of those subjects that were begun in the class room. Although we have reduced our hours of labor we have been slow to change our theory and our practices of education. Gradually we are coming to see that the leisure necessary for study is not confined to childhood, but that the reduction in the hours of labor has added several hours of leisure daily to the average laborer. It is not strange, therefore, that adult education is assuming such importance in America. Mechanical power has not only made possible a reduction in the hours of labor, but it has changed the quality of work to be done and hence the quality of the labor required. With the increased use of power-machines the need for brawn has decreased and the need for training has increased. These changes have increased the importance of the study of vocational subjects, and have increased the possibility for the study of cultural subjects. Power applied to labor saving devices has changed education, and progress has been made in developing skilled workers and dependable men.

Some of the great classics in education were written twenty centuries ago. Education has been so important in human welfare that every stabilizing human influence has been brought to bear upon it. Confidence was had only in that type of education that was based on approved theory and successful practice. The great development of power has taken place in the last two decades. Until 1869 it was of such minor importance that it was not listed in our census

reports. It is not probable that any sudden and radical changes will take place in education. In the face of all this conservatism the rapid accumulation of mechanical power has resulted in some changes in education, two of which were here cited. An historian of great analytical power might cite many such effects. The need today, however, is not for an historian, but for a prophet—or for a school of prophets. Constant changes must be made in our education to enable the rising generation to adjust itself to the new environment as successfully as former generations adjusted themselves to a more primitive environment. Such a school of prophets could render great service by indicating the changes in education that are least fraught with danger and that offer the best prospects of success.

There are today in America many individuals who are called leaders in education but whose age of plasticity was passed before the dawn of the mechanical age. Even our most youthful educators are unduly restrained by the inertia of tradition. There are educational associations whose chief concern is to hold all educational institutions to traditional standards. In such associations the mob-mind resents any appearance of originality. Our distant ancestors possessed the oxen for possibly centuries before the wheel as a burden-bearing device was invented, and before the plow as an agricultural implement was invented. We, too, may delay in making the most of our opportunities. None of us have the vision to see how education should be modified to adjust the human race to this mechanical age. It is the part of wisdom, however, to look with favor on educational experiments in such adjustments, whether conducted by an association or by an individual, and to bestow our greatest honor on the association and on the educator that makes a forward step rather than on the one that sustains a traditional standard. We are quite justified in the support we are giving the American Council on Education and in the responsibility we entrust to its most distinguished Director.

WALTER DILL SCOTT.

Report of the Executive Committee

THE FOUR regular meetings of the Executive Committee were held on September 28, 1927, and January 14, March 16, and May 3, 1928.

During the past year the membership of the Council has been increased by the addition of one constituent member, two associate members, and twenty-three institutional members as follows:

Constituent Member.—American Association of Dental Schools.

Associate Members.—C. R. B. Educational Foundation, Inc.; American Council of Learned Societies.

Institutional Members.—Bucknell University, Lewisburg, Pa.; California Institute of Technology, Pasadena, Calif.; Claremont Colleges, Claremont, Calif.; College of the Pacific, Stockton, Calif.; Holy Cross College, Worcester, Mass.; Howard University, Washington, D. C.; Huron College, Huron, S. D.; Judson College, Marion, Ala.; Keuka College, Keuka Park, N. Y.; Louisiana State Normal College, Natchitoches, La.; Marion Institute, Marion, Ala.; Marymount College, Tarrytown, N. Y.; Millsaps College, Jackson, Miss.; New York State College for Teachers, Albany, N. Y.; Oklahoma A. and M. College, Stillwater, Okla.; Pennsylvania State College, State College, Pa.; Principia, The, St. Louis, Mo.; Rollins College, Winter Park, Fla.; Shorter College, Macon, Ga.; St. Joseph's College, Emmitsburg, Md.; St. Thomas College, Scranton, Pa.; University of Oregon, Eugene, Ore.; Western State Normal School, Kalamazoo, Mich.

The total membership of the Council is now twenty-three constituent, seventeen associate and two hundred and twenty-seven institutional.

At the last annual meeting, the general plan for reorganizing the administrative agencies for international educational relations was presented. This plan looked toward the establishment in each nation of a single office for administering international exchanges, this office to be supported

mainly by the nation concerned. For the United States it was agreed that the appropriate national headquarters should be in New York City in the Institute of International Education. This plan was endorsed by the Council's Committee on the American University Union and by the American Committee on International Intellectual Cooperation. The Council endorsed the plan in principle and instructed the Executive Committee to take the necessary steps to put it into operation.

The following steps toward the practical realization of this plan have been taken. Application was made to the Laura Spelman Rockefeller Memorial to increase its grant to the Council from a maximum of \$35,000 a year to \$50,000 for the remaining term of the original grant, namely, to December 31, 1928. This application was approved by the Laura Spelman Rockefeller Memorial. The old grant of February 26, 1924, was cancelled and a new grant made. On recommendation of the Union Committee this grant was apportioned to give \$38,000 a year for support of the Union offices in Paris, London, and New York. \$7,000 a year for expenses of the Council in winding up its international obligations, and \$5,000 each year as a fund for a special study of the international situation directed toward the achieving of the main purpose of consolidating the international educational exchange machinery in each participating nation. The details of this transaction were covered by a series of resolutions passed by the Executive Committee at its meeting September 28, 1927, and distributed to the members of the Council.

In accordance with these resolutions the administration and financial responsibility for the American University Union offices was transferred to the Institute of International Education as of October 1, 1927. Part of the original plan of reorganization was that the Council should nominate two-thirds of the members of the Board of Trustees of the Institute, in accordance with the plan that had been in operation since 1924. Experience with this plan had, however, indicated that this is a clumsy and ineffective manner

of securing representation of higher education institutions on the Board of the Institute. This fact was brought to the attention of the Board of the Institute with the suggestion that it be changed for a more effective method. As a result the Board of the Institute has invited the Council to nominate two members of the Board and has invited twelve other associations of colleges and higher educational institutions to nominate one member each. It is believed that this procedure will secure a much more satisfactory representation of the colleges and universities on the Institute Board.

The Committee is glad to report that the support of the reorganized Institute for the next ten years has been assured by a grant from the Carnegie Corporation of \$50,000 a year for five years with probability of its renewal for another five years. In addition the Laura Spelman Rockefeller Memorial has made a grant of \$240,000 to be expended as the Institute desires over a period of ten years for support of the Union offices, and their gradual transformation to adapt them to the new plan of unified national headquarters.

Your Executive Committee and the Institute agreed that the best use that could be made of the \$5,000 available in 1927 for study of international educational relations was to invite the Committee on International Intellectual Cooperation of the League of Nations to make a fact-finding study of the present situation with regard to national offices of international educational exchanges abroad. Therefore the money was offered to the Committee on International Intellectual Cooperation at Geneva with which to make such a study. This offer has been accepted and the study is now in progress. The following extracts from a letter to the American Committee on Intellectual Cooperation from the Secretariat of the League of Nations indicates the cordial attitude with which this action has been received abroad:

LEAGUE OF NATIONS

GENEVA

March 19, 1928.

SIR:

In a letter dated December 15, 1927, you were good enough to transmit in the name of the American National Committee on Intellectual Cooperation to Dr. Lorentz, Chairman of the Committee on Intellectual Cooperation the offer of 5,000 dollars made by the American Council on Education for a study of the various European agencies dealing with personal exchanges either of professors or students, teachers or pupils between different countries. By my reply of the 30th of December, which was sent after consultation with the Chairman of the Committee on Intellectual Cooperation, this offer was accepted with gratitude, subject to the formal approval of the Council of the League of Nations. I am now happy to inform you that the Council, at its meeting of 7th March, dealt with this question and adopted, on the proposal of M. Briand, Rapporteur, a resolution authorizing the definite acceptance of the offer under the conditions laid down in your letter of December 15, 1927. I enclose herewith the full text of the Report and Resolution adopted by the Council.

I shall be grateful if you will be good enough to inform the American Council on Education of this Resolution and express to them once more our gratitude for their very valuable cooperation.

I have the honour to be,

Your very obedient servant,

(Signed) ERIC DRUMMOND.

Secretary General.

Professor R. A. Millikan,
c/o Dr. Kellogg,
American National Committee on Intellectual Cooperation,
Washington, D. C.

There are already established in Europe nine national offices for administering international educational exchanges. The directors of these nine offices held their third annual meeting in Paris April 17th. Dr. S. P. Duggan, Director of the Institute in New York, is attending this meeting as a representative of the American office. The establishment of the Institute as the consolidated headquarters for the United States is the most practical thing that can be done in this country to hasten the consolidation of similar offices abroad. It presents a working model that means much more than any amount of discussion of the plan as a desirable objective.

The study of the teaching of modern foreign languages in the United States and Canada is nearing completion. The report in seven volumes is in press. The work of this committee is of great significance because it has developed new procedures for measuring achievement in modern foreign languages and for organizing instruction on the basis of an analysis of usage to increase the effectiveness of elementary foreign language teaching. Fuller report of this study will be presented this afternoon.

The handbook of American Universities and Colleges edited by Dr. David A. Robertson has been issued. Because this enterprise was supported by a special grant of \$7,500 it was possible to place this book of 884 pages on the market at the remarkable price of \$2.50. In addition 1,532 copies were distributed without charge to members of the Council, to foreign universities, embassies, consulates and education offices. The reception of the book has been most cordial. It has already gone to its second printing. It has been welcomed as meeting a real need.

At the last meeting of the Council the Executive Committee was instructed to see what can be done to secure cooperation on the problem of enlistment and training of college teachers. In accordance with this mandate a special committee of the Council has been appointed. This committee has undertaken as a first preliminary step a cooperative experiment designed to clarify the general understanding of the objectives and requirements of college teaching. A circular on this subject is printed in the April number of the EDUCATIONAL RECORD. Additional copies are available for use of any institution that desires to take part. It is hoped that the institutional members of the Council will cooperate fully in this project.

The experiment with psychological examinations for college freshmen has progressed well. As a result of the experiments of the past three years, the examinations this year required only one hour and had a higher diagnostic value. It has been given at 189 colleges to 65,503 students. Because of its reliability, the examination has been offered

to the 2,500 members of the Association of Secondary School Principals for use in the senior year of the high school this spring. Already 42 high schools have ordered 3,975 copies for use with their graduating classes. Thus this experiment has entered its second stage by bringing the secondary schools into active touch with it.

Although the Council voted at its last meeting to discontinue the personnel register, it has not yet been entirely abandoned. The difficult task of keeping it up to date was not carried out last fall but the office has responded to 70 calls for candidates during the year. The office has simply ceased to advertise the register but is giving service whenever called upon.

The Committee on Personnel Methods, for which a grant of \$20,000 a year for three years was given by Mr. John D. Rockefeller, Jr., has held two two-day meetings during the year. It is developing tools and instruments of measurement for cooperative experiments in four different areas of personnel work, namely, personal record cards, achievement tests, personality measurements, and vocational monographs. Already some of these pattern instruments are being tried out in the cooperative study which the colleges of Pennsylvania are conducting in cooperation with the Carnegie Foundation for the Advancement of Teaching. Full details of the work of this committee will be presented this afternoon.

For several years there has been growing dissatisfaction with the standards used by the regional associations in accrediting colleges and secondary schools. It is coming to be recognized that although these standards have been most useful, less mechanical and more vital standards are now in order. Also the rapid changes in the divisions of the American education system, particularly at the secondary school level, have produced a situation that calls for careful and intensive study. The initiative toward having such a study made was taken by the North Central Association of Colleges and Secondary Schools at its meeting 16th March last. That association appointed a committee to secure the cooperation

of other regional accrediting associations and this Council in seeking an appropriation of \$500,000 from Congress for a two-year study of this problem under the guidance of the U. S. Bureau of Education. Fuller details of this enterprise are presented later on the program.

The Council's program of cooperation with business, industry, and the professions is making slow but solid progress. The Council is having difficulty in securing the active support of business organizations because the Council is an educational institution and it is not clear at once to business men why an educational institution should be seeking accurate information about the manner in which business is now conducted. Business men are accustomed to being asked what the schools ought to do and it takes time to persuade them that what the school needs is accurate information about how business is conducted, leaving to the schools the responsibility for determining how education may best meet those needs. Nevertheless personal contact has been established with more than ninety industrial organizations and twenty-eight of these have written descriptions of their present usage in the form of job specifications and submitted them to the Council for educational analysis. The Committee on Education of the Chamber of Commerce of the United States has approved the general plan of action and is ready to stimulate local Chambers of Commerce to develop co-operative experiments between local industries and local school systems in accordance with the basic plan endorsed by the Council. Such an experiment is getting under way in Baltimore and other Chambers of Commerce are becoming interested. No business or industrial organizations have as yet taken institutional membership in the Council. It is the sense of your Committee that such membership should not be pushed too vigorously but should await the thorough conviction of business and industry that the proposed relationship is sound. Fuller details of this situation will be presented tomorrow morning.

Attention is called to the Treasurer's Report, which shows that the finances of the Council are in sound condition. The

estimated income from fees of members, excluding special grants, for the year was \$31,580. Actual receipts from this source were \$34,070. The bank balance April 30, 1928, was \$6,207.90.

The Director's Budget for the coming year is presented herewith with the recommendation that it be approved. It is also recommended that the amendment to the Constitution as printed on the program, reducing the minimum dues for institutional members other than educational institutions from \$500 to \$200 be approved.

Respectfully submitted,

S. D. SHANKLAND,

Secretary.

Director's Budget, 1928-29

ESTIMATED RESOURCES

I. GENERAL FUNDS:

Membership dues 1928-29, \$35,920, of which \$6,740 have been paid. Balance due	\$29,180.00	
Balance on back dues	4,760.00	
Services for investigations	850.00	
Bank balance April 30, 1928	6,207.90	
		\$40,997.90

II. INTERNATIONAL FUNDS (Calendar year 1928):

Laura Spelman Rockefeller grant	\$50,000.00	
Bank balance Dec. 31, 1927	10,935.52	
		60,935.52

III. FUNDS FOR SPECIAL PROJECTS:

Modern Foreign Language Study	\$31,861.99	
Study of Personnel Methods	20,000.00	
Bank balance April 30, 1928, on Personnel Method fund	4,042.92	
		55,904.91

Total estimated resources..... \$157,838.33

ESTIMATED EXPENDITURES

	<i>General</i>	<i>International</i>	<i>Special Projects</i>	
Rent	\$ 4,000	\$ 500		
Salary of Director and Assistant Director	12,000	2,400		
Salary of Assistants	8,500	2,520		
Administrative traveling expenses	2,500			
Stationery, printing and supplies	1,500	200		
Telephone and telegrams	500			
Postage	600			
Furniture and appliances	200			
EDUCATIONAL RECORD	4,000			
Industrial Cooperation	4,200			
General Expense	500			
American University Union		42,884		
Teachers' Annuity Association	600	120		
Special Projects			\$55,904.91	
Total	\$39,100	\$48,624	\$55,904.91	\$143,628.91
Estimated surplus				\$14,209.42

Director's Report

THE COUNCIL has made a good start on the second decade of its career. During the year, one new constituent member, two new associate members, and twenty-three new institutional members have joined our ranks. On behalf of the Council, I extend to all of these a cordial welcome.

This increase in membership means far more than mere material increase in numbers reveals. It indicates rather a growing understanding of the nature of the nation's challenge to American education and a deepening desire to cooperate in meeting that challenge with courage. For the past few years we have all been aware that new conceptions of purpose and procedure in education are evolving. Now at last definite outlines of these new conceptions are visible, not only in education, but in politics, in industry, and in national life.

As a first exhibit of the type of change that is taking place, consider what is happening with regard to Federal participation in public education. Since the beginning of our national existence, the Federal Government has contributed to the support of public schools, first by gifts of public land, then by outright grants of public money, and finally by money grants which the states must match and spend for purposes defined by Acts of Congress. The present annual income of higher education from these Federal grants is about \$1,500,000 from land grants, \$4,000,000 from outright money grants and \$17,500,000 from matched grants. Bills now pending provide for increasing this latter sum to \$25,000,000 a year.

It is of course obvious that schools must have material support. Hence, it is natural that Federal aid should first take the form of grants for material support. Such Federal aid was appropriate in an age when the attention of schoolmen was focused, as it has been for some forty years, mainly on securing material equipment and perfecting the mechanics of school administration. During this period about \$200,000

a year was spent by the Federal Government for the research and information service which is so necessary for revealing the benefits derived from Federal aid and for wisely guiding further educational evolution. So far the amount spent for this service has been only 1 per cent of that granted annually for helping pay operating costs.

These relatively large Federal grants for paying running expenses of public education have been justified on the ground that the schools need the money and it is easier to get it from the Federal Treasury than from State and local funds. This justification is steadily losing force. On the average the States last year spent \$2.67 for the specified purposes for every \$1.00 of Federal funds. Such grants have also been justified on legal grounds because they have been declared constitutional by the United States Supreme Court. They do not violate the letter of the supreme law of the land. Nevertheless, a constantly increasing number of school men question the soundness of this public policy and doubt the wisdom of its indefinite continuance. Why?

In his address before the Congress of the Daughters of the American Revolution on April 16, 1928, while discussing how far we are fulfilling the responsibility of maintaining American institutions, President Coolidge said:

There are always those who are willing to surrender local self-government and turn over their affairs to some national authority in exchange for a payment of money out of the Federal Treasury. Whenever they find that some abuse needs correction in their neighborhood, instead of applying a remedy themselves they seek to have a tribunal sent on from Washington to discharge their duties for them, regardless of the fact that in accepting such supervision they are bartering away their freedom. Such actions are always taken on the assumption that they are a public benefit.

In this statement President Coolidge has given a clue as to why so many of us question the wisdom of these Federal subsidies for education. He has also presented a new point of view from which to deal with such questions of public policy. Applied to the case before us, this clue leads to the question: Granted that Federal subsidies are helpful to communities in paying the costs of public schooling, do the

benefits therefrom derived compensate for the loss in powers of self-government and for the deadening of local responsibility for managing their own affairs, which Federal grants that must be used under Federal supervision inevitably imply?

Further evidence that schoolmen are waking up to the significance of the issue presented by President Coolidge has just come from the regional accrediting agencies. For some years there has been a growing dissatisfaction with the standards used by those agencies in making their lists of approved colleges and secondary schools. These standards, you recall, are based upon such factors as amount of independent income, number of books in the library, academic training of professors, ratio of students to faculty, and other similar comparisons of the tangible evidences of school operation. At the meeting of the North Central Association of Colleges and Secondary Schools last March, dissatisfaction with this method of rating schools by their material equipment expressed itself in the appointment of a committee to see what can be done to promote the development of standards that measure instead the changes produced in students by their school experiences. This committee has secured cooperation of the other regional agencies in asking Congress for an appropriation of \$500,000 to enable the Bureau of Education to make a cooperative study of secondary education designed particularly to secure the data needed to develop more vital methods of measuring the results of schooling.

Last week representatives of the North Central Association, with approval of the other regional associations, presented the matter to the Committee on Education of the House of Representatives, and urged that adequate support be given the Bureau of Education to strengthen the research and information service of the Federal Government in education instead of limiting Federal aid to money grants. This is another exhibit that shows the transformation in emphasis that is taking place in educational thought. It indicates growing recognition of the fact that the true measure

of a government or of a school is neither its wealth nor its material resources, nor the mechanical perfection of its administration, but the quality and direction of the growth of its citizens or of its students.

This fact has been known for centuries but its practical implications for government, for education, and for industry are only just beginning to be understood. If we are "to preserve the blessings of liberty for ourselves and our posterity," we must be ever vigilant to decentralize responsibility and to insist on local self-government. We must not barter away our freedom for money grants offered under the guise of public benefit.

The Committee on Personnel Methods of this Council is endeavoring to render this ancient conception of practical use in American Schools. The United States has undertaken the greatest experiment in popular education ever attempted. The old monastic method of a beloved master surrounded by a few devoted students whose personal development he intimately supervises does not work. Appropriate methods of appraising individual capacity and of measuring individual progress in mass education must be devised. The efforts of a single individual or of a single institution are apt to be misleading, or at least inapplicable for other teachers or in other schools. Procedures that are useful on a large scale are not likely to be evolved by isolated individuals or institutions. Wide-spread cooperative experiment, pooling and discussion of results from many points of view, and intense criticism of every step are required for sound progress. This Committee has been established to render the services of the needed center of cooperation in this enterprise. Your active participation in its work is invited.

Further evidence of this new trend in educational thought may be found in the recent rapid spread of achievement tests and new-type examinations. The Modern Foreign Language Study, just completed, is a fine exhibit of this tendency. A fair portion of that Study properly deals with the material and administrative side of foreign language

teaching, such as numbers of teachers, numbers of pupils, facilities and distribution. But the vital contribution the study has made to education is the answer it enables the teacher to give to the question, "What has the student really got from his labors in foreign language study?" By supplying teachers with standardized achievement tests for vocabulary, for grammar, for composition, and for reading, they have made it possible for the teacher to appraise the actual accomplishment of the student. His progress henceforth is not to be measured in clock hours of time spent in class or in semester hours of credit thereby secured. The actual changes in the individual with regard to French, or German, or Spanish, now become the criteria of the success or failure of the teaching.

A second important contribution of the Modern Foreign Language Study is the development of a practical procedure that enables students to master more in less time. This is done by basing instruction on an analysis of current usage. Word counts, grammatical form counts, syntax counts have been made and class work so organized that the beginner encounters the most frequently used words and grammatical forms first. As a result, he soon develops confidence based on a sense of increasing control, and reaches more quickly and surely the level where he feels the liberalizing influences that are the ultimate justification for foreign language study.

The foregoing facts indicate the nature of the major new conception that is now taking definite form as a challenge to American education. The progress that is being made in developing procedures for appraising individual capacities and for measuring individual achievement shows that schoolmen are meeting that challenge with courage and with confidence. The spirit of wholehearted cooperation prevails everywhere, but there is still much lost motion and duplication of effort because there is as yet no adequately supported central information service that keeps every cooperating group informed concerning what the others are doing. The establishment of an appropriate central agency of cooperation in education is the greatest opportunity in sight in America for distinguished national service.

Three other significant movements point to a second fundamental conception that is old as the hills but new in its practical use as a guide to public educational procedure. I refer, first, to the activities of the American Association of University Women and other research agencies with regard to the pre-school child; second, to the recent organization of the Adult Education Association; and, third, to the increasing interest of employers in the training of employees. These three movements indicate practical recognition of the fact that education is continuous throughout life and is not confined to the period of formal school work. As stated, this idea has been voiced incessantly for centuries, but its implications for a nation that has undertaken to give everyone all the schooling he can absorb are just coming to be understood.

If education for any individual is really to be a continuous and coherent process of development from the cradle to the grave, it is obvious malpractice to divide life into three unrelated laps, such as infancy, school, and work. Continuity of growth requires that parents, who are responsible during infancy, understand schools; that teachers, who are responsible during schooling, understand the world's work; and that employers who are responsible for the rest of life, understand education. Such mutual understandings are steadily developing through such activities as those just mentioned.

So far this Council, since it is essentially an instrument of higher education, has not taken part in developing continuity of purpose and practice between infancy and school. The Council is, however, actively engaged in fostering mutual understanding between school and work. To this end accurate descriptions of how the world's work is actually done are being collected as a basis for an analysis of current usage in industry, in business, and in the professions. A pattern form of writing these descriptions has been evolved, so that they are comparable and capable of analysis to define usage. Twenty-four large industrial firms have furnished us with such descriptions of some 3,000 different jobs, ranging in complexity from laborer to general counsel. Enough of this preliminary material has now been gathered to begin the

analysis for educational content. It is a large and fundamental enterprise requiring for its proper execution financial support comparable with that given by the Carnegie Corporation to the Modern Foreign Language Study. This is the most pregnant opportunity at present available for promoting sound educational progress, but it has not yet been possible to secure the needed financial aid.

The efforts of the Council's office to secure financial support for this pioneer program have been both discouraging and illuminating. Though twenty-four industrial firms have been willing to write job specifications, not one has yet joined the Council as made possible by the amendment to the constitution two years ago. They seem to fear that colleges may use descriptions of business usage to mechanize students, instead of giving them liberal and fundamental training. The president of one of the leading American companies frankly said that he does not want colleges to train specialists for his company; and, therefore, he is unwilling to give schools job specifications, though he appreciates their great value for internal company uses. So far, Mr. John D. Rockefeller, Jr., has been the only one who has shown the vision and the courage to support these unconventional experiments. Because of his support, progress has been made in securing records of business usage and in developing instruments for evaluating personal capacity and achievement.

Such misapprehensions are to be expected in every novel undertaking. Even such objective novelties as the railroad and the telephone did not come into general use over night. Most of us now have so many things on our minds in this mad rush of events that we cannot think through any proposition that does not bear directly on our immediate responsibilities. Nevertheless, it is encouraging to note that several signs are appearing to indicate that the underlying principles of the personnel program are beginning to be understood. Two of these will be called to your attention in closing.

First, a new expression—self-education on the job—is com-

ing into more and more frequent use at educational conferences, particularly those of the American Management Association. The manner of its use indicates that two fundamental conceptions concerning education are tacitly accepted by those who use it. The first is the notion that true education is self-education. The second is that the daily job is the chief instrument for the education of mankind. When we accept these two conceptions as a basis for educational procedure, we have a unifying guide for bringing coherence and continuity into the unfolding life of every individual. The most precious gift with which Nature has endowed every individual is his capacity for skilled workmanship in some form, whether as hewer of wood or creator of poetry. Parents and teachers and employers can unite in a continuing effort to discover what is each individual's capacity for personal skill and can try to organize the home or the school or the world's work so that every day's experience will at some point challenge that personal skill and give it opportunities for ever-increasing achievement.

I am not qualified to comment on what is being done to infants nowadays. But the schools, industries, and professions are certainly trying more and more each year to achieve the objective thus defined. This cannot be done by guesswork or by hunches alone, any more than physical science could grow without experiments and measurements and records. And if some experimenters with I Qs and psychological tests are over confident in their alleged conclusions, do not worry. Natural scientists were once that way too. Jobs can be described, usage can be analysed, individual capacities for skill can be discovered, achievements can be measured, every day's work can be made to contribute to personal growth,—these are the essential prerequisites for vital self-education on the job.

Second, the most significant contribution to an intelligent and satisfying understanding of present world conditions as they affect education is the recent book on Constructive Citizenship by Principal L. P. Jacks of Manchester College, Oxford. In this book, Jacks shows how the older theory of

social progress follows medical analogy and considers society as suffering from various specific diseases. The reformer then devotes his energies to curing ailments or to stopping abuses. Hence, we have hundreds of welfare organizations through which thousands of benevolent citizens are unselfishly devoting time, energy and money to curing the various ills of society. Their efforts are essential to human comfort and praiseworthy in every way. The amount of human suffering they relieve is enormous.

Nevertheless, modern medicine is devoting more and more of its attention to teaching the principles of health in order that people may keep well. Philanthropic work may profit by this example of preventive medicine and seek the fundamental principles of healthy social and economic life. When society has learned to keep healthy, its various so-called diseases will disappear as a natural consequence.

Jacks maintains that social evils measure the extent to which society has been betrayed by bad workmanship because the ideal of personal skill has ceased to dominate our conception of work. Good workmanship is the foundation of good citizenship, and a skilled worker has the best possible chance of being master of his fate and captain of his soul. He becomes a responsible being, valuable to his fellowmen and conscious that he is so. Labor is the chief instrument for the education of mankind, and any man who finds in his daily work sufficient scope for his personal skill to derive from that work a valuable education has achieved the basic condition for social health.

The latent skill of the people is the greatest of all undeveloped natural resources. To discover personal skill and give it the best possible opportunity for increasing perfection through excellent performance is the most practical method for achieving social health. This requires a vigorous searching out of human aptitudes and a development of these on the lines of all the arts and crafts, both of the body and of the spirit. Training directed to that end, far from restricting the range of human knowledge, would extend and deepen it, and would impart an immense impulse to every science and its attendant art.

The manner in which Jacks traces the implications of these fundamental ideas into politics, into morality, into industry, and into education is most illuminating and inspiring. Time prevents further following of the theme, but I earnestly urge everyone to study this book at the first possible opportunity. It supplies a profound philosophical justification for the practical cooperative experiments this Council is now making.

While it is characteristic of western thought to attempt to penetrate to spiritual meanings by analysis of natural phenomena, as Jacks has done, it is characteristic of oriental thought to rely on intuition and meditation in finding the meaning of life. In the case under consideration, these two processes seem to lead to similar conclusions. Kahlil Gibran, in his booklet, "The Prophet," thus deals with the question of work:

And I say that life is indeed darkness save when there is urge,
And all urge is blind save when there is knowledge,
And all knowledge is vain save when there is work,
And all work is empty save when there is love;
And when you work with love you bind yourself to yourself,
and to one another, and to God.

C. R. MANN.

Treasurer's Report

WASHINGTON, D. C.,
May 4, 1928.

DR. C. R. MANN, Director,
American Council on Education,
26 Jackson Place,
Washington, D. C.

DEAR DR. MANN:

I herewith submit four statements of F. W. Lafrentz & Company, being audits for the period from May 1, 1927, to April 30, 1928, on the following accounts of the American Council on Education:

American Council on Education—general fund.

American Council on Education—International Education Fund.

American Council on Education—Modern Foreign Language Study Fund, New York Committee.

American Council on Education—Modern Foreign Language Study Fund, Canadian Committee.

I desire to submit these papers as my Annual Report as your Treasurer for the past year.

Very truly yours,

CORCORAN THOM,
Treasurer, American Council on Education.

GENERAL FUND

STATEMENT OF RECEIPTS AND DISBURSEMENTS

From May 1, 1927, to April 30, 1928

RECEIPTS

Constituent Members.....	\$1,800.00	
Associate Members.....	160.00	
Institutional Members.....	32,110.00	
		<hr/>
		\$34,070.00
Subscriptions to EDUCATIONAL RECORD and extra copies.....		284.65
Contributions:		
John D. Rockefeller, Jr., for Committee on Personnel Methods.....	\$20,000.00	
John D. Rockefeller, Jr., for Industrial Co- operation.....	1,450.00	
		<hr/>
		21,450.00
Sale of Psychological Tests.....		7,494.87
Reimbursement for Administating Grants:		
Foreign Language Study Fund,		
Canadian Committee.....	\$ 550.00	
Foreign Language Study Fund—New York Committee.....	1,200.00	
		<hr/>
		1,750.00
Interest on Bank Deposits.....		152.17
Sale of Report on Personnel Procedure.....		101.16
		<hr/>
Total receipts.....		\$65,302.85
Cash on Hand, May 1, 1927:		
American Security and Trust Company.....		2,454.55
		<hr/>
		\$67,757.40

DISBURSEMENTS

Salaries:

Director.....	\$12,000.00	
Assistants.....	6,235.00	
		<u>\$18,235.00</u>

Rent.....		3,120.03
Stationery, Printing and Supplies.....		1,406.85
Postage.....		597.25
Telephone and Telegrams.....		422.68
General Expenses.....		921.68
Traveling Expenses of Director.....		748.56
Executive Committee.....		595.83
Publication Expenses EDUCATIONAL RECORD.....		4,226.14
Committee on Personnel Methods.....		15,957.08
Psychological Test Experiment:		
Psychological Tests.....	\$1,824.85	
Thurstone—General Expenses.....	3,155.95	
		<u>4,980.80</u>
Furniture and Fixtures.....		152.30

Industrial Cooperation:

C. E. Hewitt, Traveling Expenses.....	\$2,063.13	
C. E. Hewitt, Salary.....	3,600.00	
Office Expenses.....	479.25	
		<u>6,142.38</u>

Total disbursements..... \$57,506.58

Cash on Hand, April 30, 1928:

American Security and Trust Company.....	10,250.82	
		<u>\$67,757.40</u>

INTERNATIONAL EDUCATION FUND

STATEMENT OF RECEIPTS AND DISBURSEMENTS

For the year ended December 31, 1927

RECEIPTS

Laura Spelman Rockefeller Memorial Fund.....	\$50,000.00
Contributions:	
Chas. L. Pack, Rome A. U. U.....	\$1,000.00
Chas. L. Pack, Dr. Krans' expenses, visit to	
U. S.....	2,000.00
	<hr/>
	3,000.00
Commonwealth Fund—Fellowship Fund.....	500.00
Interest on bank deposits.....	330.28
	<hr/>
Total Receipts.....	\$53,830.28
Cash on Hand, January 1, 1927:	
American Security and Trust Company.....	9,055.77
	<hr/>
	\$62,886.05

DISBURSEMENTS

Washington office:

Salaries:

Director.....	\$6,000.00
Assistants.....	3,778.73
	<hr/>
	\$9,778.73
Traveling Expenses.....	309.09
Stationery, Printing and Supplies.....	51.00
Telephone and Telegraph.....	3.75
Postage.....	70.00
Furniture and Appliances.....	35.00
General Expense.....	198.47
Rent.....	2,040.01
Undergraduate Scholarships, Refund to	
C. S. Dickey.....	200.00
Teachers Annuity Association....	\$720.00
Employes' Proportion to Ass'n....	420.00
	<hr/>
	300.00
	<hr/>
	\$12,986.05

New York Office:

General Expense.....	\$1,248.46
Unexpended balance of \$25,256.00 allocated	
for 8 months from May 1, 1927, to De-	
cember 31, 1927, plus unexpended balance	
at May 1, 1927.....	12,057.00
Committee Expenses.....	35.61
	<hr/>
	13,341.07
Forward.....	<hr/>
	\$26,327.12

TREASURER'S REPORT

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Forward		\$26,327.12
London Office:		
Salaries	\$5,041.70	
Traveling Expenses	500.00	
Teachers Insurance and Annuity Association	\$350.00	
Teachers Insurance and Annuity Association — Employees' Proportion	131.22	
	<hr/>	218.78
Office Expense	4,225.02	
Exchange	21.30	
Periodicals	32.00	
	<hr/>	10,038.80
Paris Office:		
Salaries	\$5,750.04	
Traveling Expenses	3,000.00	
Rent	1,350.00	
Teachers Annuity Association	\$399.93	
Employees' Proportion to Ass'n.	149.94	
	<hr/>	249.99
Office Expense	3,525.40	
Exchange	9.25	
	<hr/>	13,884.28
Handbook:		
Stationery, Printing and Supplies	\$60.65	
Postage	41.48	
Telegrams	46.62	
Printing and Typewriting	349.58	
Index	200.00	
	<hr/>	698.33
Rome office:		
General Expense	\$1,000.00	
Exchange	2.00	
	<hr/>	1,002.00
Total disbursements		\$51,950.53
Cash on Hand, December 31, 1927:		
American Security and Trust Company		10,935.52
		<hr/>
		\$62,886.05

MODERN LANGUAGE STUDY FUND

NEW YORK COMMITTEE

STATEMENT OF RECEIPTS AND DISBURSEMENTS

From May 1, 1927, to April 30, 1928

RECEIPTS

Carnegie Corporation.....	\$30,000.00
Interest on Bank Deposits.....	554.63
Sale of Tests.....	374.56
Sale of Furniture.....	146.25
Spanish Word Book.....	72.88
Refunds:	
R. H. Fife.....	\$85.29
Josephine Allen.....	.84
Algernon Coleman.....	39.61
	<hr/>
	125.74
Transferred from Canadian Committee.....	2,919.02
	<hr/>
Total receipts.....	\$34,193.08
Cash on Hand, May 1, 1927:	
American Security and Trust Company.....	17,863.32
	<hr/>
	\$52,056.40

DISBURSEMENTS

Salaries and Wages.....	\$ 9,405.61
Supplies and Equipment.....	232.23
Printing and Publicity.....	8,488.80
Communications.....	390.33
Travel and Meetings.....	3,213.87
Expert Assistance.....	6,825.72
Contingent.....	1,371.57
Transferred to Canadian Committee:	
Printing and Publicity.....	\$486.59
Travel and Meetings.....	614.47
	<hr/>
	1,101.06
	<hr/>
Total disbursements.....	\$31,029.19
Cash on Hand, April 30, 1928:	
American Security and Trust Company.....	21,027.21
	<hr/>
	\$52,056.40

MODERN FOREIGN LANGUAGE STUDY FUND
CANADIAN COMMITTEE

STATEMENT OF RECEIPTS AND DISBURSEMENTS

From May 1, 1927, to April 30, 1928

RECEIPTS

Carnegie Corporation.....	\$12,500.00
Interest on Bank Deposits.....	277.33
Spanish Word Book.....	36.44
Refund—M. A. Buchanan.....	219.01
Transferred from New York Committee.....	1,101.06
Total Receipts.....	<u>\$14,133.84</u>
Cash on Hand, May 1, 1927:	
American Security and Trust Company.....	13,530.72
	<u>\$27,664.56</u>

DISBURSEMENTS

Salaries and Wages.....	\$5,854.00
Supplies and Equipment.....	1,269.47
Printing and Publicity.....	802.54
Travel and Meetings.....	3,226.23
Expert Assistance.....	1,308.52
Contingent.....	1,450.00
Transferred to New York Committee—Expert Assistance	2,919.02
Total Disbursements.....	<u>\$16,829.78</u>
Cash on Hand, April 30, 1928:	
American Security and Trust Company.....	10,834.78
	<u>\$27,664.56</u>

Constitution of American Council on Education

1. **NAME:** The name of the organization shall be "American Council on Education."

2. **OBJECT:** The general object of the Council is to promote and carry out cooperative action in matters of common interest to the associations represented. It is understood that such matters will lie mainly in the field of university and college work, and in related educational fields. The Council was organized to meet national needs in time of war and will always seek to render patriotic service. It will also encourage international cooperation in educational matters.

3. **MEMBERSHIP:** The membership of the Council shall consist of three classes of members—constituent, associate, and institutional.

Constituent Members: This group shall consist of national educational organizations and such other bodies having similar interests as may from time to time be added by the Council.

Each organization shall be represented on the Council by three members who shall vote as a unit through a designated person. It is recommended that each organization in the first election following the date of this meeting, elect one member for a term of one year; one for a term of two years; and one for a term of three years; and that all subsequent elections be for terms of three years. Elections of new members to the Council shall take effect immediately following such elections. Any election to fill a vacancy occurring during the year shall take effect at once, and shall be for the remaining period of the term thus filled.

The Council shall report its actions to the several organizations at the close of each year ending April 30, and at such other times as may be desired.

Associate Members: Associate members shall consist of such organizations having interests related to the work of the Council as may from time to time be elected by the Council. Associate members may send one representative each to the meetings of the Council, without right to vote.

Institutional Members: This group shall consist of colleges, universities and professional and technical schools of similar grade, that contribute not less than one hundred dollars to the treasury of the Council, and of other organizations of high standing that carry on higher educational activities or cooperate with educational institutions in improving instruction, and that contribute not less than two hundred dollars a year to the treasury of the Council. The conditions of eligibility for institutional membership, both for educational institutions and for other organizations, and the scale of membership fees shall be fixed by the Executive Committee of the Council. Institutional members may send one representative each to the meetings of the Council. Whenever a

vote is taken, if there are negative votes, the institutional members shall be counted separately and no action shall be valid unless supported by a majority of the constituent members present and voting. On request of any three members any matter directly affecting institutional members shall be made the subject of a referendum vote by them before final action is taken by the Council.

4. DUES: The annual dues for constituent members shall be \$100 a year, for associate members \$10 a year, and for institutional members from \$100 to \$500 a year for educational institutions, and from \$200 to \$2,500 a year for other organizations, a portion of which shall be for one or more subscriptions to THE EDUCATIONAL RECORD at \$2.00 a year for each subscription, the number of copies to which each member is entitled being fixed by the Executive Committee.

5. OFFICERS: The Council shall elect a Chairman, a first Vice-Chairman, a second Vice-Chairman, a Secretary, a Treasurer, and such other officers as from time to time may seem desirable. The Treasurer need not be a member of the Council. All funds for which the Council, or any of its committees, is responsible, shall be received by the Treasurer and shall be disbursed by him under proper authority.

The Council shall also elect a salaried Director, who shall be the chief executive officer. He shall have general administrative supervision of the affairs of the Council and shall be responsible for the carrying out of such plans and policies as the Council, or its executive committee, may approve. He shall be *ex officio* a member of the executive committee and of all standing committees. He shall report annually to the Council, and shall make such other reports as the Chairman of the Council may request.

All officers, except the Director, shall be elected at the Annual Meeting, and their terms of office shall begin immediately following election.

6. EXECUTIVE COMMITTEE: There shall be an Executive Committee consisting of ten members, eight selected from the representatives of the constituent organizations, and the Director and the United States Commissioner of Education *ex officio*. The Chairman and Secretary of the Council shall be Chairman and Secretary, respectively, of the Executive Committee. The remaining six members shall be elected by the Council, two at each annual meeting to serve for a three-year term. The Executive Committee shall hold meetings at least quarterly, and shall report its actions to the members of the Council after each meeting.

In case a member of the Executive Committee shall fail to attend (or to designate an alternate) at two meetings of the Executive Committee, he shall cease to be a member thereof. In case of a vacancy on the Executive Committee, the Committee shall have power to fill the vacancy until the next meeting of the Council.

7. MEETINGS: The annual meeting of the Council shall be held on

the first Friday in May. Special meetings may be called by the Chairman. The Chairman shall call a meeting at any time at the request of representatives of any three constituent organizations.

Written notice of all meetings shall be sent to all members at least two weeks in advance, except in special circumstances when this provision may be waived by consent of the representatives of two-thirds of the organizations constituting the Council.

Those present at any meeting of which written notice has been duly given, shall constitute a quorum for the transaction of business, but no action shall become effective until approved by representatives of a majority of the organizations constituting the Council.

8. BUDGET: The Executive Committee shall present a budget each year at the annual meeting, and no financial obligation shall be incurred by any officer or committee except as authorized by the Council or the Executive Committee. The fiscal year of the Council shall close on April 30.

9. TRAVELING EXPENSES: The traveling expenses of the officers and the Executive Committee may be paid from the funds of the Council.

It is recommended that the traveling expenses of the other members attending the meetings of the Council be paid by the organizations which they represent.

10. COMMITTEE APPOINTMENTS: The Council and the Executive Committee may appoint special committees. All committee appointments shall expire April 30, with right to reappointment. The members of committees may be selected from the members of any institution associated with one of the organizations constituting the Council. Chairmen of committees shall be invited to sit with the Council, without right to vote.

11. AUTHORITY OF COMMITTEES: Final responsibility for all undertakings rests with the Council. The Executive Committee shall act for the Council between meetings, but shall refer all questions involving new policy to the members of the Council for letter ballot before taking final action. Committees are not authorized to commit the Council to any undertaking not specifically authorized by the Council or its Executive Committee.

12. AMENDMENTS: This Constitution may be amended at any time by vote of three-fourths of the organizations constituting the Council.

Written notice of any proposed change in the Constitution shall be sent to all constituent members of the Council at least two weeks before the meeting at which the proposed change is to be considered.

Officers of the American Council on Education, 1928-29

Chairman: President Frederick B. Robinson, College of the City of New York, representing the Association of Urban Universities.

First Vice-Chairman: Mr. R. E. Files, Principal, East Orange High School, representing the Association of Colleges and Secondary Schools of the Middle States and Maryland.

Second Vice-Chairman: Mr. L. W. Smith, Superintendent, Joliet Junior College, representing the American Association of Junior Colleges.

Secretary: Mr. S. D. Shankland, National Education Association, representing the Department of Superintendence of the National Education Association.

Treasurer: Mr. Corcoran Thom, American Security and Trust Company, Washington, D. C.

Director: Dr. C. R. Mann.

Assistant Director: Dr. David A. Robertson.

Assistant to the Director: Dr. C. E. Hewitt.

Executive Committee: The Chairman, the Secretary. For 1 year—Dr. A. W. Harris, 150 Fifth Avenue, New York City, representing the Council of Church Boards of Education; Dean Virginia C. Gildersleeve, Barnard College, representing the American Association of University Women. For 2 years—Chancellor S. P. Capen, University of Buffalo, representing the Association of American Colleges and the Association of American Medical Colleges; Mr. J. Walter Dietz, Western Electric Company, representing the American Management Association. For 3 years—Dr. Charles H. Judd, University of Chicago, representing the North Central Association of Colleges and Secondary Schools; President Guy E. Snively, Birmingham-Southern College, representing the Association of Colleges and Secondary Schools of the Southern States. The Director and the U. S. Commissioner of Education, *ex officio*.

CONSTITUENT MEMBERS AND THEIR DELEGATES FOR 1928-29

AMERICAN ASSOCIATION OF DENTAL SCHOOLS:

L. E. Ford, University of Southern California, Los Angeles, Calif.

Marcus L. Ward, University of Michigan, Ann Arbor, Mich.

Frank T. Breene, State University of Iowa, Iowa City, Iowa.

AMERICAN ASSOCIATION OF JUNIOR COLLEGES:

Deak S. Campbell, Central College, Conway, Ark.

H. G. Noffsinger, Virginia Interment College, Bristol, Va.

L. W. Smith, Joliet Junior College, Joliet, Ill.

AMERICAN ASSOCIATION OF TEACHERS' COLLEGES:

Shelton Phelps, George Peabody College, Nashville, Tenn.
 Noble Lee Garrison, Teacher's College, Ypsilanti, Mich.
 Normal W. Camron, West Chester, Pa.

AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS:

H. G. Doyle, George Washington University, Washington, D. C.
 H. C. Lancaster, Johns Hopkins University, Baltimore, Md.
 H. W. Tyler, Mass. Inst. of Technology, Cambridge, Mass.

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN:

Dorothy Stimson, Goucher College, Baltimore, Md.
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Personnel Methods

Report of Progress of the Committee on Personnel Methods

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Foreword

Cumulative Educational Record Forms

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A Selected Bibliography

AMERICAN COUNCIL ON EDUCATION

26 Jackson Place

Washington, D. C.

Announcement

The American Council on Education invites colleges and universities to cooperate in the further experimental development of the personal college record card described herein, pp. 18-21. The actual card is printed on premier rag bristol board creased to make a folder $9\frac{1}{2} \times 11\frac{3}{4}$ for use in the usual correspondence file. These record cards may be secured from the Council at cost of printing: \$5.50 a hundred.

The Council also invites colleges to cooperate in the experimental development of forms for recording measurements of personality. The tentative rating scale, p. 58, and the form for recording description of personality printed on sheets of bond paper ($8\frac{1}{2} \times 11$ inches) may be secured from the Council at cost: \$1.00 a hundred.

Additional copies of this SUPPLEMENT TO THE EDUCATIONAL RECORD may be secured at the price of twenty-five cents each.

AMERICAN COUNCIL ON EDUCATION
26 Jackson Place
Washington, D. C.

The Committee on Personnel Methods¹

WITH the organization of society for mass production and mass distribution has come a realization that new problems have been created for society. To solve them some would turn back to the thirteenth century with William Morris; some would go forward with H. G. Wells. In making a book some would follow Dard Hunter in having a single craftsman make paper and water-marks, design and punch type, compose and print and bind each volume; others would find a way to make useful and beautiful books in editions of millions.

The problem arises in education too, because of the situation forced on schools and colleges by numbers. Some would seek a return to that golden age when one eager student learned from one inspired teacher; others, realistically confronting the responsibility for teaching 726,124 students in 913 universities, colleges and professional schools (1923-24), would find ways to make that teaching more effective even under conditions created by such heavy enrolment. The very pressure of numbers, which has intensified the need for solving the problem, has aided in developing a solution. For numbers have made possible statistical methods in education—the development of norms whereby the individual student may be more certainly measured. During the last forty years, and more especially since 1910, new ways of measuring human ability have been invented and their correlations have been studied. In the May number of *Harper's Magazine*, the President of the American Telephone and Telegraph Company presents the relationship of scholarship in college as measured by marks, with success in his great organization as measured by salaries. Many have studied the relationship of success in college and

¹ Report of the Secretary of the Committee on Personnel Methods presented at the Annual Meeting of the American Council on Education, May 4, 1928.

success in high school or in taking intelligence tests or by other means likely to be useful in predicting success in college. The colleges, the professional schools, the graduate schools, the industrial and commercial organizations, the army, the navy, and civil service wish to know in advance an individual's prospects for success. And not satisfied with such indications as appear in Mr. Gifford's article, they seek to measure scholarship and other abilities more accurately so that there may be more exact estimates of men and women for the advantage of the individual, the college and society.

The widespread interest in personnel methods affecting industry, the professions and the colleges was precipitated January 1, 1925, in a meeting called by the National Research Council, Division of Anthropology. This National Research Council Conference on Vocational Guidance in Colleges was attended by representatives of fourteen universities and colleges, who were constituted an Advisory Council with power to increase its membership. Dean H. E. Hawkes of Columbia University was elected chairman of the Advisory Council, and also of the Executive Committee of five, which the chairman was authorized to appoint. The Executive Committee, Messrs. Hawkes (Columbia), Holmes (Harvard), Mann (American Council on Education), Scott (Northwestern) and Wellman (Dartmouth), prepared many memoranda and endeavored to secure financial support. From the Benevolent Fund of Mr. John D. Rockefeller, Jr., a grant was received in 1925 which made possible a study of personnel procedure in fourteen institutions.

The report of this study by Mr. L. B. Hopkins, formerly of Northwestern University and now President of Wabash College, was printed as a supplement to the EDUCATIONAL RECORD in October, 1926. It is available in the form of a reprint. Mr. Hopkins showed that among these fourteen institutions there existed a widespread interest in modern personnel methods and a widely variant practice in the application of them.

Encouraged by the findings printed in Mr. Hopkins' report, the Executive Committee then presented to Mr.

Rockefeller a plan (1) to inform the colleges and universities of the United States concerning the best personnel methods; (2) to prepare a personal record card which should afford personal information to teachers and administrators at the college level; (3) to prepare achievement tests and make available all the facts concerning them in an effort to stimulate such testing; (4) to develop objective and useful measurement of character; (5) to prepare vocational monographs. For these projects Mr. Rockefeller in 1927 granted to the American Council on Education the sum of \$20,000 a year for three years. The Executive Committee then decided to invite the cooperation of scholars in the work of four committees, of which the chairman of each should be a member of the Executive Committee, and to determine policies at a conference of all committees at the Hotel Thayer, West Point, New York, July 1 and 2, 1927.

The American Council on Education invited the following men and women to attend the West Point conference:

Central Committee on Personnel Methods: H. E. Hawkes, (Columbia), Chairman; H. W. Holmes (Harvard); L. B. Hopkins (Wabash); C. R. Mann (American Council on Education); A. H. Ruggles (Yale); W. D. Scott (Northwestern); D. A. Robertson (American Council on Education), Secretary.

Sub-committee on Personal Record Cards: L. B. Hopkins (Wabash), Chairman; Mary H. S. Hayes (New York); J. J. Coss (Columbia); D. T. Howard (Northwestern); J. H. Willits (Pennsylvania).

Sub-committee on Achievement Tests: H. E. Hawkes (Columbia), Chairman; Agnes B. Leahy (Connecticut College); V. A. C. Henmon (Yale); M. R. Trabue (North Carolina); Ben D. Wood (Columbia).

Sub-committee on Personality Measurement: D. A. Robertson (American Council on Education), Chairman; Grace E. Manson (Michigan); F. F. Bradshaw (North Carolina); Donald G. Paterson (Minnesota); E. K. Strong, Jr., (Stanford).

Sub-committee on Vocational Monographs: C. R. Mann (American Council on Education), Chairman; Emma P. Hirth (New York); W. W. Charters (Chicago); A. B. Crawford (Yale); C. S. Yeakum (Michigan).

All these persons except Miss Leahy and Messrs. Crawford and Charters, who were represented respectively by Miss Margaret Smith, S. S. Board and D. Waples, attended the meeting and enthusiastically participated in the general

discussion of policies at the session Friday morning, July 1. Further discussion developed the opportunities and responsibilities of a central office for quick evaluation of material available; for information concerning personal record forms, achievement tests, rating scales, and vocational monographs; and for stimulating the cooperation of colleges and universities, secondary schools and other organizations concerned in personnel procedure.

The afternoon and evening sessions of Friday were devoted to meetings of the several committees, which reported their findings to the general session Saturday morning. The minutes of the West Point Conference were sent to all members of the American Council on Education and a report was printed in the *EDUCATIONAL RECORD*, October, 1928 (David A. Robertson: "Personnel Methods in College").

The Committee on Personal Record Cards undertook to prepare two separate records: (1) a complete educational personal record to contain items of record covering a student's school life from the seventh grade through college, including personal items and extra curriculum and academic records; (2) a college personal record including items selected because of their immediate utility in the care of individual students at the college level, items from the secondary school record, the college record (personal, extra curriculum, and academic). This card is intended to be the key personnel card of the college distinct from the record kept for admission or for the cumulative record of grades.

The Committee on Achievement Tests recommended that a census of work that is being done in schools and colleges in the preparation and use of objective achievement tests be undertaken. It recommended also the stimulation of intelligent use of placement tests and objective achievement tests in colleges. To this end the committee undertook to prepare an annotated list of available tests for use at the college level, with directions and suggestions for their use. Since achievement tests are already available in Modern Foreign Languages, High School Mathematics, American History, English, First and Second Year Latin, Physics and Chemistry, the Committee proposed to develop, as rapidly

as possible, tests in the subjects which are named in the order of their importance for this purpose: Economics, Government, Ancient History, European History, Solid Geometry and Trigonometry and Biology. The committee called attention to the fact that, although a sufficient number of forms and objective achievement tests are available to last for three or four years, any permanent use of such tests is contingent upon the preparation of new forms in practically every subject. Finally, the committee agreed that, although the preparation of a general high school content examination might be desirable, no recommendation for its preparation would be made at the present time.

The Committee on Personality Measurement reported that personnel work demands, in addition to ability and aptitude tests, estimates and measurements of personality traits; that it recognized rating scale techniques as provisional, pending development of objective measurements; that meantime sufficient progress in measuring certain personality traits had been made to warrant trial at the present time; that, in view of the small number of valid tests of personality traits, it recognized that rating scales would be necessary for some time to come. The committee suggested certain principles to safeguard and improve rating procedures: (1) Only traits observed by the rater should be measured. (2) Only those traits for which valid objective measurements are not now available should be considered. (3) If instructors are to rate large numbers of students, the number of items should not exceed five. (4) Traits should be mutually exclusive. (5) No single trait should include unrelated modes of behavior. The committee undertook to make a rating scale on these principles for use in a cooperative experiment among selected secondary schools and colleges, and to prepare instructions for the guidance of raters and of the writers of specific case records or character sketches. The committee emphasized the importance of training raters if valid ratings were to be obtained. This committee expressed its desire to make quickly available for use in colleges the E. K. Strong, Jr., Vocational Interest Test; especially it expressed a desire for scales and a scoring manual

for Engineering, the Ministry, Law, Medicine, and C. P. A. Finally the committee announced its desire to receive suggestions concerning other tests of personality traits, if sufficiently developed to warrant inclusion in this cooperative program.

The Committee on Vocational Monographs undertook to prepare a statement defining the results which a well-written monograph should achieve, the types of information which it should contain, and sources of information and methods of its presentation. The committee, being agreed on the main points, decided to employ a specialist to collect and analyze as many existing vocational monographs as practicable for the purpose of revising the position of the committee regarding the results to be attained, types of information needed, sources of information and methods of presenting the same. On the basis of this, the committee proposed to develop a working model outline before November and then to invite four or five individuals or industrial firms to prepare one vocational monograph each in some occupational field where reliable occupational data are available. These should be completed by March, 1928. These samples the committee hoped to distribute among colleges which have appointment offices, so that these forms might be tried by students graduating in June, 1928. The committee planned to compile criticisms by the students using these experimental monographs and to prepare outlines and forms for similar experimental trial in 1929.

Such was the program agreed on at the West Point Conference and authorized by the Central Committee at the conclusion of that conference.

Immediately after the West Point Conference the several committees energetically began studies leading to the completion of their undertakings for the first year. These achievements are included in the reports presented at the Briar Cliff Conference, April 23 and 24, 1928.

The Briar Cliff Conference was attended by all members of the committee except four, two of them being in Europe, an evidence of the way in which the earnest work of the committee at West Point and during the year had won the loyalty of all members.

For Committee I, Personal Record Cards, President L. D. Hopkins reported that it had enlisted the services of two experts (Professor Ben D. Wood of Columbia University and Professor E. L. Clark of Northwestern University, and had developed a tentative high school record card and a tentative college record card. The committee will print and distribute to members of the American Council on Education these experimental college personal record cards as soon as possible after June 1, 1928, and with them will issue a manual so that users of the card can understand the reasons for the inclusion of the several items. The form will also be published in the EDUCATIONAL RECORD with a statement of the purpose of the card in its tentative state.

For Committee II, Achievement Tests, the Chairman, Dean Hawkes, reported the completion of the following achievement tests: American Council Economics Test, Form A; American Council Trigonometry Test, Form A; American Council Solid Geometry Test, Form A; American Council Ancient History Test, Form A; American Council Civics and Governmental Test, Form A; Columbia Research Bureau Italian Test, Form A. These tests with norms will be published by the World Book Company in time for use in September. The committee will develop Form B of these tests during the second year. Colleges will be made aware of the availability of these tests and the manner of using them and an annotated list of all available tests—achievement and intelligence—at the college level will be published for the information of the colleges. The Committee has undertaken also to prepare a test in English and one in Zoology.

For Committee III, Personality Measurement, the Chairman, D. A. Robertson, reported that the committee had engaged W. E. Parker of the University of Michigan to study the forms used by members of the Council. Although most of the colleges were closed during July when 210 institutions were asked to send specimens of their record forms, 78 colleges submitted 100 samples. A summary of the study of these is printed in the EDUCATIONAL RECORD for October, 1927. Mr. Parker made a special study of the

640 statistical items in the rating scales used by 38 of these 78 reporting institutions. On the basis of these studies and studies of rating scales used in the army, civil service, industry and the professions, this committee at a meeting in Columbus, Ohio, December 30 and 31, 1927, decided to offer the colleges (1) a rating scale, (2) a check list, and (3) directions for writing character sketches, and also formulated a rating scale which it subsequently subjected to experiment in the University of Minnesota, the University of North Carolina and Stanford University. At Briar Cliff, April 22nd, the committee decided that the tentative rating scale, like all the others studied, showed such weaknesses in correlations that the committee must face again the question of the validity of this device. At the same time the committee held that the failure of the rating scale might have been due to the fact that raters have not yet been sufficiently trained to make valid observations regarding personality. The committee, therefore, undertook to train observers accurately to note useful signs of character and to record them. In pursuance of this program the committee will publish (1) its rating scale as revised April 24, 1928; (2) a check list as prepared by Professor Donald Paterson of Minnesota, and (3) suggestions for writing character sketches as prepared by David A. Robertson. All of this material is published in the EDUCATIONAL RECORD for July, 1928. The Vocational Interest Tests developed by Professor E. K. Strong, Jr., of Stanford University, will be available for use in the autumn.

For Committee IV, Vocational Monographs, the Chairman, Dr. C. R. Mann, reported that the Committee had engaged Mr. R. S. Norton of Dartmouth College to analyze 122 monographs. The committee had agreed on certain elements which a model monograph should possess. This report was mimeographed and widely distributed. Members of the committee then proceeded individually to develop model forms. Mr. Crawford of Yale supervised the preparation of one in the field of banking and another in the field of trust companies. Professor W. W. Charters prepared one in the field of librarianship. Professor C. S. Yoakum developed one for medicine, and Dr. C. R. Mann cooperated with the

American Telephone and Telegraph Company in framing a document which was printed, however, before Dr. Mann's suggestions could be incorporated. Each member of the committee will proceed at once to publish his monograph. The committee will secure from the authors a list of questions which they desire to have answered concerning the monographs. Then a staff of 40 students will read all four available monographs and answer the questions propounded by the authors. The committee has also undertaken to enlist the cooperation of 20 personnel officers each of whom will induce five or ten students to read a monograph and answer critical questions. These criticisms will be compiled and each author will revise his monograph. Members of the committee on the basis of this experience will analyze difficulties and write specifications for a model monograph—the experience of all being summarized in a manual of instructions.

The Secretary announced the preparation of an address list of over 800 officers of members of the American Council on Education interested in the development of personnel methods.

The Secretary reported the preparation of a classified bibliography of 1,087 books and articles published between January, 1920, and January, 1928, and available in the office. He reported also the preparation of a selected short bibliography for presidents, deans, and other college officers concerned with personnel administration—a list which will be printed in the *EDUCATIONAL RECORD* for July. He pointed out also the desirability of organizing a cooperative service to review and abstract books and articles in the field for the convenience of personnel officers in the colleges.

Dr. Yoakum announced the preparation of a bibliography of vocational guidance, which the Regents of the University of Michigan have since undertaken to print.

A final discussion of the importance of emphasizing the general purposes of the committee in the field of college education led to the creation of Committee V, Personal Development, of which the Executive Committee later appointed Dr. Arthur Ruggles of Yale, Chairman.

DAVID A. ROBERTSON.

Personal Record Cards

Foreword

THE Central Committee on Personnel Methods has developed from a committee appointed by the section on Anthropology and Psychology of the National Research Council. The Committee is at present organized under the American Council on Education, and is operating under a subvention from Mr. John D. Rockefeller, Jr., which he has generously afforded for the support of the study and development of personnel procedure.

Unity and continuity of the educational process, including the totality of individual development from kindergarten and primary school to the last year of instruction, sums up the principles to which the Committee subscribes and in the interest of which it is working. The immediate attention of the Committee is focused upon college problems. In the wider sense our attention is upon the aims of education and the development of certain methods and tools which are useful in schools and colleges.

The sub-committee whose preliminary report follows has addressed itself to the task of preparing a personal record card and an accompanying manual. The form that is here presented is the work of Prof. Ben D. Wood, of Columbia College, and Dr. E. L. Clark of Northwestern University, who have made a study of a multitude of record cards, preserving many good features and adding others which represent their own best thought and that of the Committee. Although such a record form is in a sense a routine tool it is really far more, because the items included on the record and the instructions given in their use represent the findings of many investigations from many points of approach to the problem of individual guidance and development. The record form has comprehensiveness, a novel and very time-saving chronological recording scheme to recommend it, and more important still it is the reflection in record form of a point of view—a point of view which many of the colleges of the country have hoped to develop and toward which they are still directing their efforts. The form is probably far from

perfect. Many suggestions as to its improvement will be made, but it is a start, we believe a good start, in a comprehensive standard and useful record of a student's complete activity in college.

The Committee invites the use of this folder in its present form in the hope and expectation that experience will indicate modifications and improvements in future editions. It is believed, however, that in main outline the work here presented will prove reasonably permanent.

H. E. HAWKES,
*Chairman of Central Committee
on Personnel Methods.*

Personal Record Cards for Schools and Colleges

Cumulative Educational Record Forms*

FOR A number of years considerable attention has been given to the problem of formulating a cumulative record system for the whole educational ladder, built around the concept of the student as an individual and continuous entity, whose developmental history is more significant and revealing than is his status at any one time, however accurate and complete may be our information concerning his status at any such one time. The tentative college record form which I shall attempt to describe here has been formulated by a committee of the American Council on Education under the chairmanship of President L. B. Hopkins of Wabash College. President Hopkins' committee is keenly aware of the fact that the form thus far evolved represents only a beginning of the difficult task that the committee has undertaken; and it must be clearly understood that the folder in its present form is issued for experimental purposes. It should also be made clear that the practical value of this folder depends upon the adequacy and precision of the accompanying Manual of Directions. Indeed, the committee members feel that the largest and most important part of their task is the production and continuous refinement of the Manual of Directions. It is with the hope of securing your help in this imposing task, as well as in that of criticising the form of the folder, that it is placed in your hands in its present tentative form.

Every record form of this sort must be a compromise between what experts would consider ideal and what experienced administrators consider practically feasible. Thus, we have allowed very small space for such important items as health and mental hygiene data. It is apparent that

*Prepared for the Committee by Professor Ben D. Wood, Columbia University.

these space provisions are inadequate for any individual who is a serious physical or mental health case; but there are several considerations which seem to justify our space allotment for these items. The permanent cumulative record is intended to be an *ex post facto* record, designed for the typical student, and providing for detailed data mainly on his *educational* history, and caring for other and sometimes more crucially important aspects of his development only in general terms. This record is not intended to be either inclusive or exclusive. It will not exclude the use of auxiliary record forms for atypical cases, nor is it intended to replace the medical examiner's record nor the Employment Bureau's detailed record of jobs secured, held, or lost.

Nor is the cumulative educational record intended to replace Registrar's records, or admission application blanks, or auxiliary source cards or report forms or interview records now used in various parts of the college administration. All the forms now used, and perhaps additional ones, should be considered as sources of the data that are to be evaluated, interpreted and put upon the cumulative record in terms of defined units and symbols which may be uniformly meaningful in all schools which use this form or which have access to the Manual of Directions. It is not remotely intended that this cumulative record shall include *all* the information not even all the important and significant information, that the college has in its possession regarding a given student. It is intended to give a fairly complete and meaningful *outline* of his educational achievements, both curricular and extra-curricular, plus general indices of, or guides to, other significant types of information that should be taken into account before any crucial decisions are made respecting a given case. Thus, a notation in the health line of an otherwise normal record, would warn the Dean or personnel officer that the student's detailed health report should be consulted before making any further major decision concerning him. If it is a chronic condition, the periodic reports of the medical adviser should be kept in the folder until the health factor has reached some kind of final adjustment, so far as the school is concerned.

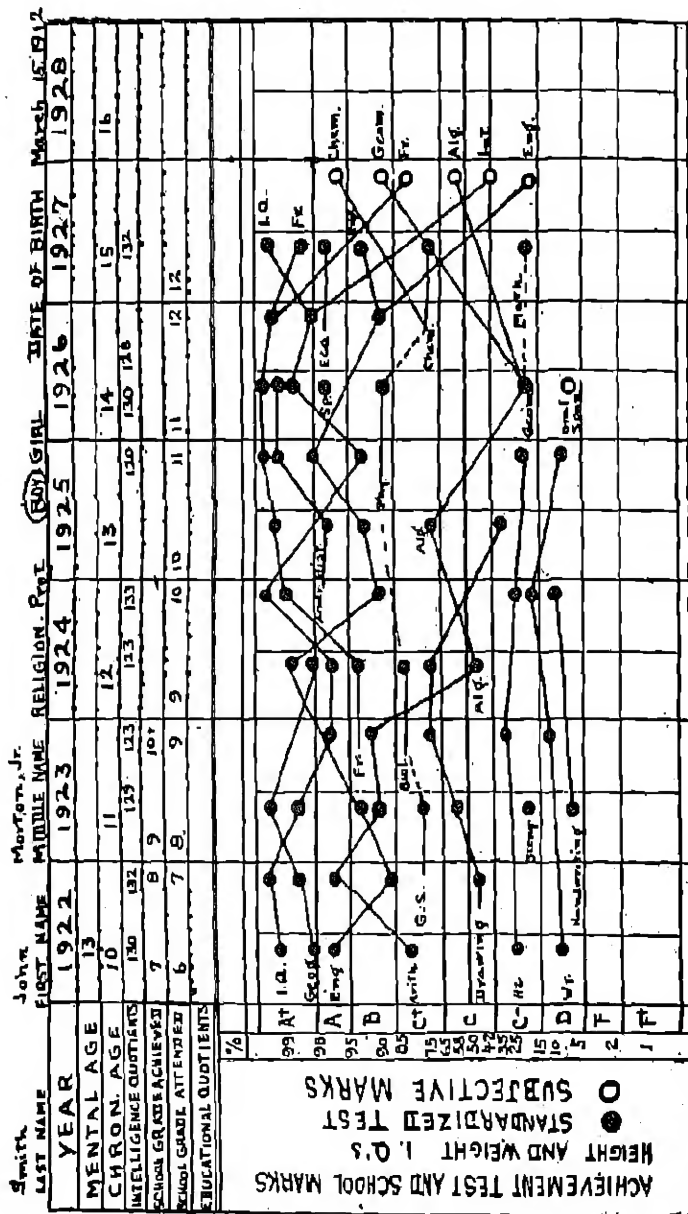
This record folder in its present form represents furthermore a special sort of compromise between including on one card an all-inclusive educational record and excluding from it all save the college record. We have taken the view that the educational record of a college student includes his grade school and high school data no less than his college data. Indeed, from the constructive viewpoint, an exact and understandable record of the pre-college educational developments of a college student is a requirement in planning and advising his college work and life. A college record not firmly based upon an adequate lower school record is too often foredoomed to be merely a record of an academic *post mortem*. In the light of this view it seems necessary to indicate in some detail the nature of the pre-collegiate record which the committee considers to be an indispensable foundation for an adequate college record system. No satisfactory exposition of the college record folder seems possible without a clear understanding of the preceding record of which the college record is designed to be an unbroken continuation. Nor could we justify the compromise alluded to above in any other way. The college folder in its present form provides very meagre space for high school data. Paradoxical as it may seem the ideal college record which we hope will be in general use within a decade, will provide not *more* space but *no space at all* for high school or lower school data. The only reason for allowing any space for high school data on the proposed college folder is that adequate records are not now, and will not for some years, be furnished by the lower schools, and that such data as are at present furnished by the high schools are so meagre that they can be conveniently summarized in a small space. When the lower schools begin to furnish adequate cumulative records in standard form, these will become automatically a part of the college record, without the expense and errors involved in copying. The high school record in its complete form will then be a part of the whole educational record used by the college. This point will become clear as soon as we have discussed the illustrative high school record reproduced on pages 18 to 21.

Some of the criteria for a good cumulative record form which have guided our efforts are:

1. The record form must show *trends of development* of abilities and interests.
2. It must be based on *accurate measures* and *concrete observations*.
3. The record must provide a means for recording measures and observations in comparable and meaningful terms, wherever such measures are available, but must at the same time provide for convenient recording and clear differentiation of whatever measures, subjective and non-comparable, may be available.
4. The data should appear in a form and order capable of showing their inter-relations, and thus presenting a coherent and integrated picture of the individual.
5. The record should be capable of quick reading; hence it should be in graphic form in so far as possible.
6. The record should be fairly complete for the large mass of "normal" children, requiring auxiliary cards only for extremely atypical subjects, mentally or physically.
7. The record should be reproducible, inexpensively, accurately and quickly, such as by photostating.
8. The record should be accompanied by a carefully written and amply illustrated manual of directions.
9. It should be administratively convenient, showing all available information on one continuous record form and permitting the collection of further data, by auxiliary cards and otherwise, for current use (in connection with the previous record) and for periodic sifting and entering on the permanent record.
10. Since all officers of the school that have to deal with students should have access to all the information that is available on each student anywhere in the school, it follows that the Principal's record and the teacher's record should be duplicates so far as information of permanent significance is concerned.

Secondary School Cumulative Record Form

The general scheme of this cumulative record form is to provide annual spaces for all items of information that change or may change as the individual grows older. Family history and factors which do not change or which change relatively little are provided for on page three. The annual columns are intended to represent *calendar years* rather than school sessions or school grades. This arrangement makes possible graphic interpretation of all the entries in the record in terms of the life span of individuals and in terms of their



PERSONNEL METHODS

[illegible]

SOCIAL ADJUSTMENTS AND HOME CONDITIONS	Very shy		Very shy	Avoids company	Avoids company
PERSONALITY RATINGS	Pers. -2 Pers.	-1 Pers.	-2 Pers.	-2 Pers.	-2 Pers.
	Leadership 0 Leadership	+1 Leadership	+1 Leadership	+1 Leadership	+2 Leadership
	Initiative -2 Initiative	+2 Initiative	+2 Initiative	+2 Initiative	+2 Initiative
	Reliability +2 Reliability	+2 Reliability	+2 Reliability	+2 Reliability	+2 Reliability
MEASUREMENTS		Introvert			

individual growth rather than in terms of artificial and frequently insignificant and unimportant school quarters, or semesters, or sessions. In general, this record when filled out for a given individual may be described as a time-projection of the significant bits of information that the school has been able to secure about him.

As indicated above, this provisional record form is presented here merely as a tentative outline of the general features which a cumulative record form should have. Many of the details may be considerably altered. The basic skeleton of the record, however, will be permanent as here presented. That is, columns representing calendar years which permit the data collected during a given year to be so summarized as to present an interpretable cross section of the individual's life and at the same time permit the interpretation of any given entry in terms of all the data that have been collected in preceding years. The extent to which this form of cumulative record can give a meaningful picture of an individual can best be comprehended by an attempt to read the record for the individual whose identity we have concealed under the name of John Morton Smith, Jr. John Morton applied for admission to college in September, 1927. He presented credentials in the form of college entrance examinations in Chemistry, Plane Geometry, French, Algebra, and English, and one or two other subject matters, the records of which were not available for inclusion on this record form. In addition to these college entrance examination results, John Morton's application blank included estimates of his intelligence or native capacity by his school principal, his supervisor, and his Mathematics teacher. These ratings are indicated on page one of the chart in the 1927 column by the open circles followed by the notations, Chem., Geom., Fr., Alg., Int., and Eng. The quality of the ratings is indicated by the distance above or below the heavy horizontal line labeled "C" at the extreme left of the chart. John Morton was not admitted to college for the reason that his grade on the college entrance examination in English was in the lower 16 per cent of the candidates who took that English examination and that his

principal, supervisor, and Mathematics teacher estimated his intelligence as being below average, and, further, because the interview which he had with the admitting officer was such as to convince that officer that John Morton was not a good college risk. It should be added that the case of John Morton came to light only accidentally.

Investigation of his case revealed the fact that he had spent five years in one of the best secondary schools in the country, in which he was considered an unusually gifted student. He graduated from this six-year high school in five years with honors. The school is known as an experimental school in which objective tests have been used for many years regularly at the end of each semester. As a result of this practice the school has a very large mass of data on each individual that has spent any considerable time in that school. The data on John Morton were found in a folder of papers about two inches thick, including more than a hundred separate sheets and cards and booklets. These sheets and cards and booklets were clipped together by years but none of the information had been summarized or coordinated into a single coherent cumulative record form. The data presented on the record form used above includes only a selection from the voluminous reports available of items which were considered most significant.

On the first line at the top of the record appears the subject's name, his religion, sex, and date of birth. On the second line (Year) are indicated the calendar years. The third line (M.A.) provides space for entering the mental age measurements. The fourth line shows the chronological age of John Morton. Notice that in each column John's age was written over a short vertical line drawn between the third and fourth dots. This shows that in 1922, for example, John was ten years old about the middle of April. The fifth line shows Intelligence Quotients figured at different times in each year. The sixth line shows the educational achievement of John Morton in each year as measured by standard tests and expressed in terms of grade norms. The seventh line shows the school grade attended each year. Notice that in 1922 John Morton finished the sixth grade in the

spring, entered the seventh grade in the fall, and early in 1923 was found in the eighth grade and in the fall of 1923 in the ninth grade. The eighth line provides spaces for Educational Quotients.

The gridiron chart summarizes in graphic form the measurements made of John Morton's achievement in various school subject matters, as measured once or twice each year during a five-year period by means of standardized tests. The records of his school grades as determined by subjective estimates or subjectively scored examinations were not included on this chart except for the college entrance examination results referred to above.

The scales at the left of the chart are merely suggestive. The first one represents percentiles scaled to half-sigma distances, and the second is the traditional letter grade scale used in most institutions. The letter grade scale in this case has been adjusted to fit the percentile distribution of a particular school; if a school using this card has established a different letter grade distribution, the scale can be changed or replaced by a percentage scale.

Looking in the upper left hand corner of the gridiron, we notice that John's I.Q. as measured at the end of the sixth grade places him in the 99th percentile. Following the points connected with this first I.Q. measurement across the chart, we find that the average of ten separate intelligence tests given over a period of five years gave John Morton an average I.Q. which is clearly within the highest two per cent of human intelligence. Again looking at the upper left of the chart, we find that in Junior High School Geography as measured by standardized tests, John Morton is clearly within the highest two per cent. The results of his English tests are somewhat irregular, but the average of them is clearly within the highest six or eight per cent. Looking in the 1923 column, we notice that John started French in his second year in the Junior High School and speedily went to the top of his class, being clearly within the highest one or two per cent in French throughout his three years in the Senior High School. He started American History in the fall of 1924 and took three standard tests, achieving an

average in all three in the highest two per cent. In Economics, which he took in the last year in Senior High School, John was within the highest three per cent.

Going back to the left end of the chart, we notice that John was in the highest twenty per cent in Arithmetic at the end of the sixth grade. He was measured three times in Arithmetic in the Junior High School and achieved an average at about the 90 percentile. In Algebra, however, he dropped down to about the average and when he got to Plane Geometry he dropped down to the lowest 16 per cent. In General Science, Biology, Physics, and Chemistry, John was consistently above average. In Drawing he was just about average. He was below average in height and still further below average in weight throughout the Junior High School period. In 1923 he took the Stenquist Mechanical Test and was found to be in the lowest 16 per cent. In Handwriting he was found to be in the lowest 10 per cent in 1923 and 1924.

John Morton became ambitious in 1926 to go to college that fall. In an effort to increase the number of credit units that could be counted toward college admission, he applied for permission to take a college entrance examination in Spanish. Since he had not studied Spanish, this privilege was refused. His Modern Language teachers, however, saw fit to try him out with a standardized test in Spanish and found that he achieved a score which placed him in the highest three per cent of third year Spanish students. In oral Spanish, however, he was in the lowest six per cent according to subjective tests given by his Modern Language teachers. These Spanish measurements are indicated in the 1926 column. This is one of the most significant bits of information that could be recorded about any prospective candidate for admission to college. It shows not only extraordinary linguistic ability, but scholarly initiative and independence which is only too rare in students that have been regularly admitted to college.

It will be noticed in the 1927 column that the college entrance examination grades are greatly at variance with the standard test measurements. The highest college en-

trance examination grade is in Chemistry and the next highest in Geometry; the next highest in French. French was clearly John Morton's strongest high school subject, and Plane Geometry was obviously his weakest point, according to the Plane Geometry standard test result of May, 1926 and according to the combined Algebra and Geometry test which he took in May, 1927. The lowest college entrance examination mark was in English, which is obviously erroneous if the preceding five-year record has any validity at all. It is probably accounted for by the fact of John's very poor handwriting, and his excitable nature as revealed in the rest of the record. The general inference from this graphic record of his school measurements covering the Junior and Senior High School years is that John Morton is probably in the best five per cent of college risks so far as scholarship is concerned.

Before turning to the highly confirmatory remainder of John Morton's cumulative record, it may be noted in passing that the chart and the blank spaces immediately under it provide ample room for entering the subjective school grades in each one of the subject matters he might have studied in each year or semester. The subjective grades might be entered on the chart just as the standard test results have been entered, but using the open circles, and any explanatory details or remarks could be entered on the lines to the right of the chart in the appropriate column.

Immediately under the space for the photo we find spaces for attendance, cause of absence, and discipline. Many reports under these headings were found in his folder but none were of sufficient significance to be included on the permanent cumulative record. There were many however, which seemed significant enough to be permanently recorded under the head of "Unusual Accomplishments." Only four or five of these have been noted. In 1924, at the age of twelve, John's English teacher reported that he had read Shakespeare complete and had written an essay on Shakespeare in Politics which was a model of documented writing in view of his age. In 1925 his French teacher reported that he had independently read several works of four

French authors. In 1926 John further manifested his interest and ability in French by translating three short French comedies into English. It was in this same year that he demonstrated his ability and initiative in romance languages by taking the standardized test in Spanish and achieving a score within the highest three per cent of normal third year Spanish students. In 1927 his English teachers reported that he had written a manuscript of two hundred pages on Geography in French Literature, and especially commented on the breadth of its documentation.

Nowhere is the advantage of cumulative records better illustrated than in the lines provided for extra-curriculum experiences. No one entry in either of these lines could possibly have any great significance, but no one can fail to notice a definite trend in both these lines. Reading from left to right in the athletic line we find that from 1922 to 1925 John indulged slightly in hiking, baseball, football and tennis. After the spring of 1925 his only athletic activities consisted in frequent solitary hikes over the neighboring hills. All participation in group athletic activities ceased in the spring of 1925. In the non-athletic line we notice that from 1922-1924 John indulged slightly in dramatics, debating and journalism. After the fall of 1924 all participation in group activities ceased and John achieved quite a notoriety in what was called journalism. Actually, this was confined wholly to writing serious reviews of learned books. These two lines of interest give a hint not only of significant trends in the development of his personality, but also of his interests and abilities. The line for vocational experience gives a picture of industry which is only rarely associated with average college students. He worked three months every summer for five years at speedily increasing salary and with highly favorable reports from his employers. The holding of a job for three months may not be of much significance per se, but when such jobs are held for five consecutive years, the indications of industry and reliability are no less significant than are those of effective interests and intellectual integrity. All the teachers in the Junior and Senior High School years agreed with John that he should go to a liberal

arts college. His professional preferences from 1922-1926 were given, in order, as writer, writer, law, journalism, and writer. His reported interests were consistently in the field of literature, English, French and Spanish and History. He had no special defects except a difficult case of variable astigmatism which was finally corrected. In his tenth and eleventh years he was in poor health, but in good health throughout his Senior High School years. He was considered very shy in the Junior High School years and was reported as definitely avoiding company in the Senior High School.

Only a few of the available personality ratings were entered on the present cumulative record form. John was a very small, not very handsome, and very shy youngster. His personality was, therefore, consistently rated as very poor. Minus two is the lowest rating given, and plus two is the highest in the system employed in this school. In leadership he was reported as indifferent or as definitely below average. In 1922 he was given the lowest rating in initiative and in 1925 and 1926 he was given the highest possible rating in initiative. This can mean only one thing: the 1922 rating in initiative referred to group activities and the 1925-1926 initiative ratings referred to literary activities. In 1923 he was rated as indifferent in reliability. Investigation showed that in this year John's dislike of group activities led him to avoid attendance at rehearsals and team practice. All his other ratings on reliability are very high. In 1923 the record shows that he was examined by a mental hygienist and was reported as being highly introverted.

This record, covering the five years in which this youngster graduated from a six-year High School, is in violent contrast with the meagre and hardly defensible snapshot record on the basis of which he was denied admission to college, and which is too often typical of the kinds of records on the basis of which many applicants for admission to college are accepted or rejected. When college admissions shall be largely based on cumulative records similar to the one illustrated, we may hope that the present mortality rates of college students shall be greatly mitigated. The obvious

and gross error of not admitting this boy illustrates strikingly the practice in our education which results in a loss of more than a third of college freshmen before they achieve sophomore standing and in the failure of 5 out of 7 freshmen to achieve any kind of academic degree.

Few people know what painful searchings of heart and mind are the portion of admission officers during the admitting periods, particularly in the September rush. They are always wondering with reference to each case decided whether they have been fair to the applicant, to the college, and to society in admitting or rejecting the applicant. Nothing will ever release the admission officer from the responsibility and burden of making the final decision, but his most soul-trying experience would be mitigated to a very considerable extent if in the majority of cases he had as a partial basis for decision such a record as is here illustrated.

The main value of such a record is not, however, merely that college admissions would be more accurate. The main advantage is that bright minds can be authentically detected very early, and adjustments and readjustments made in the light of cumulative and comparable information on achievements and on trends of development of interests and capacities, while there is still some hope of adjustments being successful. Adjustments that are provisionally made, and all should be made provisionally, can be checked up and altered to meet newly developed or newly observed needs. The colleges are becoming increasingly conscious of the fact that their real responsibility is not "college education," but the education of college youths. If a boy is ever a college type of mind he is such from birth, and the college has as vital an interest and as large a responsibility for directing the educational activities of a college youth when he is aged six, or ten, or twelve, as when he is aged sixteen or twenty. That this directing function must be done through teachers whose payrolls are administered by other than college trustees, makes the task more delicate but does not lessen the responsibility of those who claim higher and liberal education as their province. The management of the education of college youths must be a sympathetic and patient coopera-

tion of the complex administrative fractions that now make up the whole educational ladder, and the common denominator of these various fractions must be the individual child as pictured in a complete and cumulative record similar to the one illustrated above.

College Cumulative Record Forms*

We now present the tentative form which President Hopkins' committee has worked out for the Cumulative Educational Record folder for colleges. It very closely parallels the lower school form illustrated above, and is ultimately intended to be an extension of it. The general adoption of a uniform record in colleges and high schools will eliminate many inconveniences as well as grievances that we now suffer because of the imaginary Chinese Wall which we have erected between secondary and higher schools, and because of the excessive individualism displayed in record forms. The Principal of a large New York City High School has made eloquent and entirely justifiable complaints against the heterogeneity of forms sent in by the colleges to be filled out by High School Principals. If a standard form could be agreed upon by both colleges and high schools, there would be great saving of time, money, feelings, and errors. We have too long and too much underestimated the size and frequency of errors due to the variety of forms now used, and to the fact that the records have to be copied on these heterogeneous forms by hand. The adoption of a uniform blank will make possible the photostatic reproduction of the records, and these photostatic copies sent, e.g., from a high school to a college, being of the same general form as the college folder, immediately become the basal records of the college on the students concern, and the college record is started merely by slipping a blank college folder into the photostat folder which has come from the high school. It would obviously be wasteful to copy an already compact record from one folder to another. Special cases, involving one or more auxiliary record cards

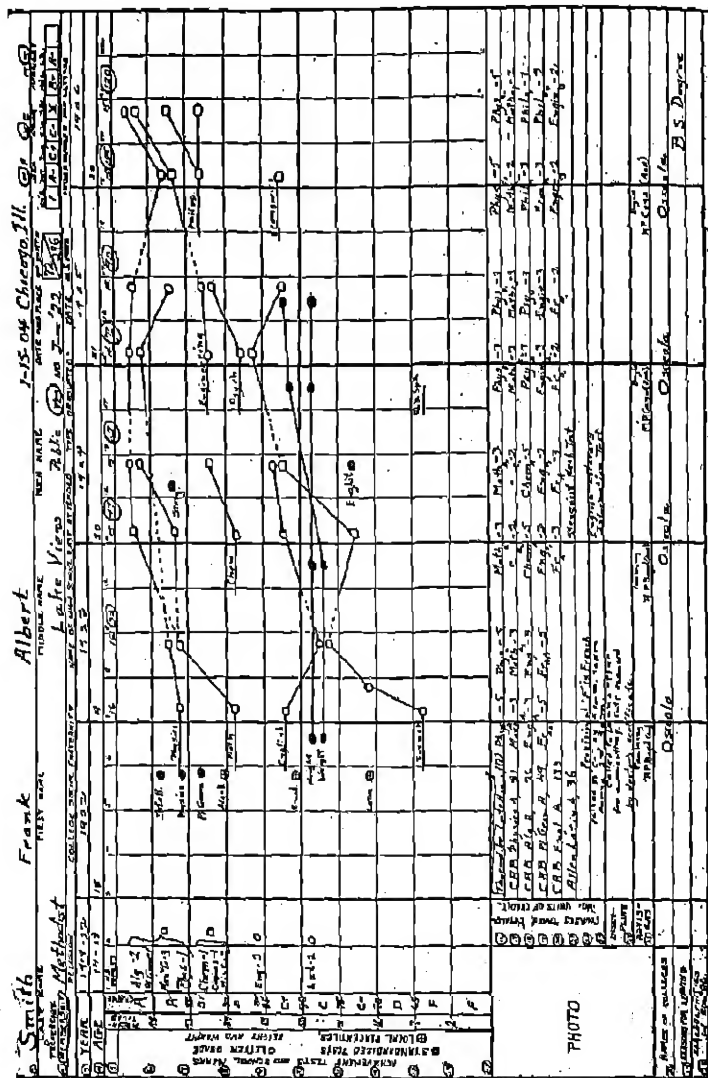
*Prepared by Professor Ben D. Wood and Dr. E. L. Clark.

or sheets could still be reported completely by photostatic copies of such auxiliary cards. The important thing is not that all the information be on one folder, but that the folders containing the lower and higher school records should be kept inseparably together, so that they can be read one in the light of the other. The uniform folder system here proposed makes it easy to keep the high school and other temporary or permanent auxiliary records with the college folder, because it has all the conveniences of the ordinary file folder.

Interpretation of the Record of Frank A. Smith

To one who is unfamiliar with this record form the story of Frank Smith as here presented will doubtless seem quite complicated, but a brief acquaintance with the folder will enable the personnel officer or dean to secure a clear and well-rounded picture of the abilities, achievements and interests of this student. The family history as presented on lines 61-68 gives us a picture of a rather humble but substantial family and social background. The summary of his high school work and of his extra-curricular activities during the high school period and of the ambitions and interests which he had during high school years and of the opinions of his high school teachers respecting his abilities, intelligence, personality, etc., give us a picture which, projected on his family background, defines fairly definitely the educational guidance problem of this young man. This definition of his guidance problem is confirmed by the results of the placement tests which he took at entrance to college and which are recorded on the graph in column five. Briefly, the problem is not one of finding out what Frank Smith's abilities are, but rather one of persuading him to accept his real abilities and interests as genuinely worthwhile and persuading him to give up an ambition which was fortuitously acquired and which clashes with his real interests.

It is quite obvious that Frank is a young man who likes to work with things, and it is equally obvious that he has displayed no particular interest or talent in the humanities or in writing, yet he came to college determined to become



a writer. This rather incongruous ambition was at least partly due to the influence of an uncle who was a reporter and who had encouraged Frank to follow the profession of writing. Frank could assign no definite reason for his desire to become a writer, nor could he give any evidence favoring this choice of a life work. Nowhere in his record does it appear that he willingly undertook to write anything, nor that he read any books other than those connected with mechanical devices. All he could say was that he had always taken it for granted that he would be a writer and that he would be very unhappy if he was not allowed to become one.

His complete record, including the placement results, was discussed with him very candidly during the first semester that he was in college, and again in a series of two or three interviews during the second semester after his first semester grades were on the record. His failure in French was a bitter disappointment to him and his mediocre mark in English was also somewhat disappointing, but he found more pleasure in having merely passed his English than in having secured rather high marks in Physics and Mathematics. Under the pressure of his disappointment, he devoted many painful hours to the study of French and managed to pass the make-up examination about the middle of the second semester. His continued improvement in French was largely due to the fact that at the suggestion of the personnel officer he began reading articles in French on science and engineering topics. The content of ordinary French test-books not only did not arouse his interest, but repelled him. He was also encouraged to read articles in English on engineering topics and on engineering as a profession. These readings gave him an entirely new outlook on the various engineering professions and enabled him to sense for the first time that such professions were as "respectable" as the profession of writing and presented quite as great opportunities for notable service as the profession of writing.

During his second year he still wanted to be a writer but confessed that he was undecided; and at the end of his second year tentatively agreed to consider engineering as a

possible profession. During his third year, under the influence of his engineering and science teachers, he definitely decided to pursue the electrical engineering course and ceased entirely to think about writing as a profession.

No one of the various bits of information that make up this record would justify any definite conclusion regarding this young man's abilities and interests. It is the *cumulative effect of objective observations concretely stated*, showing glimpses of his conduct under varying circumstances and spread out over a series of years, that delineates his real bent, that manifests the persistent interests that dominate his life, and that demonstrates the fortuitous character of his earlier choice of a profession. It seems clear that his true bent could have been equally definitely ascertained during the secondary school period, and one who witnessed the intense suffering of this man during his first two years in college cannot avoid reflecting on the saving which might have been effected for him of the process of weaning him away from the mistaken (but sincerely and tenaciously maintained) ambition to become famous as a writer had been begun earlier. The fact that so intelligent and worthy a young man should ever have made this choice, and the fact that he was permitted to entertain such an ambition unchallenged throughout his high school years, is an interesting commentary on the guidance which is vouchsafed our students under the present organization of our educational system. It is an example that eloquently justifies the emphasis which we have been putting upon the need for cumulative records in the lower schools. Effective guidance requires that we learn what the abilities, achievements and dominating interests of students are, but it requires much more than this. It demands that we learn these things and impart them to the student *early enough and in such a way as to mobilize his emotionalized attitudes around feasible ambitions*, and to prevent the crystallization of emotional longings around vague aims which are impossible of realization.

To illustrate concretely the force of cumulative data, let us consider the extra-curricular record of Frank Smith, be-

ginning with line 31. The amateur radio station of his last high school year, considered alone, might well be discarded as indicating only that Frank, like thousands of others of his age in 1921, was absorbed in the current amateur radio fad. Similarly, his perpetual motion machine, considered alone, might be taken as evidence of a foolish and arid example of "tinkering." But considering these bits of conduct in connection with those noted in the 1923, '24, '25 and '26 columns, we are forced to conclude that they were not stray accidents. There emerges in the series of entries in line 31 evidence of a definite type of interest which is so persistent as to leave little doubt as to the quality and direction of one of the native urges of this individual. Nowhere on the chart does any evidence appear which contradicts the indications of this line as to one of his controlling interests; and nowhere on the chart does any evidence appear which would indicate that he was fitted either by native talents or effective interests to follow the profession of writing.

It cannot be too much emphasized that the clarity of the picture which we get of this individual is due to the *cumulative* effect of bits of information collected from many sources and over a series of years. The different entries in a given year column and in different year columns tend to correct any false suggestions that a single entry might make and to bring out its essential meaning. A good illustration of this quality of the record form may be noted in the case of the personal ratings on lines 55-59. The personal ratings given during the high school years indicate that Frank Smith was high in mechanical ability; above average in reliability, industry and initiative; average in intelligence and scholarship; and below average in leadership and personality. The ratings given during the second semester in college are about the same except that he is rated below average instead of above average in initiative and is rated as very low in leadership. The same ratings were given again almost unchanged during the fourth semester in college. During the sixth semester, however, all of the ratings except one placed Frank Smith distinctly above the average and in

personality he is rated as average. These high ratings were given again in the eighth semester. The explanation seems to be that the first three sets of ratings were given teachers who were much influenced by literary considerations, who were struggling with his mediocre ability to express himself in written English and who saw in Frank a somewhat unhappy and maladjusted student; the last two sets of ratings were given by college teachers who were highly pleased with the achievements of Frank and his promise in scientific lines and who were subject to the common halo error of judging Frank's whole personality by his achievements in the line of his (and their own) particular interests. Of course it is quite possible that there was considerable improvement in his personal appearance and manner after he had escaped from his obsession for becoming a writer and had found satisfaction in pursuing studies for which he had a genuine ability and interest. Specific mention might be made of other interesting features of this sample record but these are left to the interest of the reader.

In conclusion we remind the reader again that this record folder in its tentative form is published at this time only because a number of colleges have expressed a desire to experiment with it and because it appears to those who have had most to do with it that further improvements can be most economically made by submitting it to the test of actual experiment. This reservation applies with even greater force to the Manual of Directions outlined above. The directions are incomplete both as to items mentioned and as to the degree with which the items that are mentioned have been developed. The cooperation of all colleges that use this folder is invited for filling up the gaps in the Manual of Directions and for improving the details of the folder.

Blank copies of this folder will shortly be available in quantity and may be secured at cost from the American Council on Education.

It seems appropriate to note the fact here that a number of colleges in Pennsylvania in cooperation with the Carnegie Foundation and elsewhere under local auspices are contemplating introducing this folder into their record systems

for the freshmen class of September, 1928. The introduction of the folder in these colleges is particularly auspicious this year because an almost complete battery of college placement tests is available and the colleges may therefore start this folder with a more or less complete set of standard test measurements of their September, 1928, freshmen. These tests may be secured from the American Council on Education.

Tentative Directions for Making Entries on the College Cumulative Record

Line 1. Names of the individual should be printed just above the line at the places indicated. On the sample folder filled out for Frank A. Smith no entry has been made over "Nick Name." This means that he had none or that it was not used frequently enough to be known. Numbers and abbreviations may be used to indicate date and place of birth. Sex, color, and marital status are to be indicated by encircling the letter which applies. The entries on the sample folder mean male, white, and single.

Line 2. Encircle *Preference* or *Membership* and indicate the student's religion or church preference. The name of the college social fraternity of which the student is a member or pledge is written next. Absence of any entry means no membership. Enter the name of the high school last attended and, above the word *Type*, may be noted whether the school was a public or private institution. If other classifications of high schools have been found more useful, they may be entered here instead of the one suggested. Next encircle *Yes* or *No* to indicate whether or not the student was graduated from high school. Above the word *Date* enter the date of graduation or withdrawal from the high school. The rectangle just above *H.S. Rank* is for showing the rank of the student in his high school class. In the upper left triangle put the exact standing of the student in his class (counting 1 as the highest) and in the lower right triangle enter the number of students in the entire graduat-

ing class. If the exact rank of the student is not known, but his position with reference to thirds, fourths, or fifths of his class is known, this information should be recorded in the rectangle. For example, if the student is in the upper third of his class the entries should be *1* and *3rd*; if he is in the second highest fifth, the entries in the rectangle would be *2* and *5th*. In such cases care should be taken to write *3rd* not *3*, and *5th* not *5*, so that it will not be read as highest in a class of three, or second in a class of five.

The long rectangle at the end of the line, *Index Numbers and Letters*, is reserved for recording in very concise form information which may be very indicative of a student's scholastic ability. In the first cell may be entered the high school standing in terms of quarters. Ranking in the highest quarter of the high school graduating class would be indicated by entering in the first cell the digit *1*, the second quarter by *2*, etc. In the remaining cells should be entered the results of standardized placement tests given at entrance to college. The abbreviations which we have used are as follows: *H.S.Q.*, High School Quarter; *Int.*, Intelligence Test Score; *Eng.*, English Placement Test Score; *F.L.*, Foreign Language Placement Test Score; *S. Sc.*, Social Science Placement Test Score; *Math.*, Mathematics Placement Test Score; *L. Sc.*, Laboratory Science Placement Test Score. Just what test has been used in each case is recorded in the first year-column on lines 16 to 23. The results of these tests should be recorded in the cells on line 2 in terms of letter-grades. Once the results of the tests have been placed in the *Cumulative Achievement Graph* the corresponding letter-grade may be read off by looking at the *Grade* scale at the left of the graph. Taking the case of Frank on the sample folder we find that his intelligence test score corresponds to A-, his English score to C+, his Latin score to C-, the Social Science score is missing, the Mathematics scores in both Algebra and Geometry correspond to B+, and his Physics score to A-. In making this abbreviated record of test results we have used X to indicate the absence of data. The indices for Frank are therefore recorded as

1ACCXBA. An extra cell has been left at the end for recording the results of any other test. A student who may be designated by 1AABCAA is immediately expected to be much different from one who may be designated by 4DFCCDD. The signs following the letter grades in this rectangle may be used or omitted in accordance with local preference.

To return to the sample case of Frank Smith, the entries on Line 2 mean that he was a member of the Methodist Church, that he was not a member of any college fraternity, that he graduated from Lake View High School (Public) in June, 1922, with a standing of 72nd from the top of the class of 396 students, that he was in the first quarter of his High School class, ranks A in general intelligence, C in English and Latin, took no placement test in Social Science, and ranks B and A in Mathematics and Laboratory Science.

Line 3. *Year.* The spaces between the heavy vertical lines represent calendar years. The first year written in should be that in which the student has entered college, whatever quarter or semester is his first. Thus if a student enters college in September, 1922, the years 1922, 1923, 1924, 1925, and 1926 should be entered at once. At the left is a one inch space for indicating the calendar years during which the individual attended high school. The sample chart shows that Frank entered college in September, 1922, and continued until the end of the 1925-1926 session. The one inch space shows that he attended high school during the years 1918-1922.

Line 4. *Age.* The chronological age of the individual should be entered here. In the first one-inch space enter the age to the nearest half year at which the student entered high school and the age at which he graduated from or left high school. In the five two-inch spaces, place his chronological age as exactly as possible over the month of his birth. Thus, if the first two-inch column represents the year 1922 and the student was eighteen years old in January, 1922, 18 should be written at the left side of the first quarter-year column. Similarly the years 19, 20, 21, and 22 would be written at the left side of the first quarter-year column of

the years 1923, 1924, 1925, and 1926. This is what has been done for Frank in the sample chart.

Line 5. The small numbers in the spaces on this line are used only to designate the quarter-year columns within which they are written. The number of hours or points of degree credit earned each semester or quarter should be entered in these spaces. The cumulative totals of degree credits earned should be entered on this line and circled. In the case of Frank Smith, the number of hours or points credited at the end of the first semester, January, 1923, was 16; and at the end of the second semester, June, 1923, again 16, making a total of thirty-two. At the end of the third semester he received credit for 15 additional hours or points making a total of forty-seven. At the end of the fourth year, June, 1926, Frank had accumulated the total of 120 points required for graduation.

Lines 6-16. *Cumulative Achievement Graph.* This graph is designed particularly to represent the scholastic achievements and trends of the student, but other types of data, such as of height and weight, may be advantageously recorded here. In this graph time is indicated by horizontal position, and quality or grade of achievement by vertical position.

There are two types of scales by means of which degree of excellence may be represented, the percentile or sigma scale,¹ and the letter-grade or percentage-grade scale.

These two types of scales are placed in contiguous columns at the left of the graph, but they are quite different from

¹For detailed expositions of percentile and sigma scales see Otis, *Statistical Method in Educational Measurement*, World Book Company, Yonkers, New York, 1925; McCall, *How to Measure in Education*, MacMillan, New York, 1922; Kelley, *Statistical Method*, MacMillan, 1923; and Rugg, *Statistical Methods Applied to Education*, Houghton Mifflin, Boston, 1917.

The horizontal lines of the graph are drawn to represent vertical distances in half-sigma units. The approximate percentiles corresponding to the various sigma distances are entered at the left of each line, so that the graph may be conveniently used to record scores which are in terms of either sigma units or percentiles. Intermediate points between half-sigma units must be estimated.

one another, and the difference must be clearly understood and kept in mind. The percentile or sigma scale enables us to represent the status of a student in terms of his relative position in a defined group. The letter-grade or percentage-grade scale is the traditional scale which high school and college teachers use. The only innovation here is that the grades are recorded graphically.

The results of standardized tests which are expressed in terms of percentiles or sigma units based on adequate norms are indicated by solid circles. If the results of these standardized tests, or of non-standardized objective tests, are recorded in terms of local percentiles, they should be shown on the chart by crossed circles. Letter-grades and percentage-grades should be shown on this graph by means of open circles. It must be kept in mind that solid dots and crossed circles on this graph invariably refer to the percentile or sigma scale, and open circles invariably refer to the letter-grade or percentage-grade scale.

The High School summary record will always be entered in column 1, headed *H. S. Record*. Column 2 is reserved for College Placement test results of students who enter college at midyear. If a student enters college in September, his placement test scores will be entered in column 5, and column 2 may be used to record college entrance examination results, if such are available. For such a student, columns 3 and 4 will remain blank, unless more than six months have elapsed between high school graduation and admission to college; in which case the reason for the delay in entering college and other pertinent facts, such as the student's employment in the interim, may be noted on the chart in these columns.

The sample chart filled out with the record of Fank Smith gives some idea of how trends are shown by this method of keeping academic records. At the left, in column 1, we see that in two years of Algebra, one year of Plane Geometry, three years of Manual Training, and one year of Physics he received very high grades, about A-, in high school. In one year of Chemistry, one year of Civics, and two years of History he had somewhat lower grades, about B+. In three

years of English he had B- and in two years of Latin he received about a C average. When he entered college in September 1922, (see column 5) he took a standardized intelligence test and received a score which gave him a percentile ranking of 96; that is say, he exceeded about 96 per cent of the 10,000 college freshmen who had previously taken this test. He also took other objective tests in Physics, Plane Geometry, Algebra, English, and Latin. Since norms were available for Physics and Plane Geometry, he could be given percentile score showing how he compared with thousands of other college freshmen who had taken these tests. In these two tests, as the black circles show, he received very high scores. For the Algebra, English, and Latin tests only the results of the entering freshman class were at hand and consequently his scores on these tests were recorded in terms of local percentiles. This fact is shown by the use of crossed circles. The graph shows that he was above the average for his group in Algebra and English but not in Latin. In the Latin test only about 18 per cent of the group received a score lower than his. He was then in the upper part of the lowest fifth of this entering group.

The graph also shows that at the end of the first semester (January, 1923), he received letter-grades of A- in Physics, B in Mathematics, C+ in English, and a provisional F in French. The use of open circles shows that these grades are not based on standardized tests and that they are not expressed in terms of percentiles. They represent the letter-grades or percentage marks sent by the instructors to the Registrar. The lines show that these courses were begun in the last part of September, 1922, just after taking the college placement tests. The second circle in the line representing the French courses shows that a second grade, a grade of C-, was given in March, 1923. This grade, as the note explains, was secured on a second or make-up examination. Physics was taken during the first academic year but not during the summers of 1923 and 1924 nor during the the academic year 1923-24. It was, however, taken again during the whole session of 1924-25. We have used a solid line to indicate the time during which a course has been

taken and a broken line for those intermediate periods when it was not being pursued. If quick identification of the courses represented by the lines and circles on the chart is desirable, the name or number of the course may be written just above or below each circle. The solid and broken lines connecting a series of circles across the chart show that all the courses thus represented are in the same field of study, e.g., physics; but unless the names or numbers of the courses are given on the chart, we must look at the entries on lines 16-23 to ascertain the exact sequence of courses. On the chart in the sample folder we have omitted the numbers of the courses in order to make the graph clearer and more legible. Two Mathematics courses were taken throughout the academic year of 1923-24. The broken line at the middle of every calendar year shows that no summer school work was taken. In November, 1922, measurements of height and weight were made and recorded. He was somewhat below average in height and weight this year and the following year, but in November, 1924 and in May, 1925, his weight had increased. Attention is also called to the scores made on the Stenquist Mechanical Test taken in the middle of the second semester 1923-24 and on the English Literary Information Test taken at the end of this semester. Osceola College in June, 1924, cooperated with a number of other colleges in giving this test of English Literary Information and the solid circle showing Frank's percentile standing is based upon the results of this entire survey.

Lines 16-23. *Courses Taken, Catalog Number, Units of Credit.* On these lines are to be explained the entries on the graph above. In addition to the names of the courses, their catalog numbers, and hours of credit, such items as the names of tests used, raw scores made on them, and any notes explaining entries on the graph should be written here in the proper year column. When it is desired to indicate the time, a short slant line (/) through the base of the graph may be used. The slant line (/) in the sample folder at the end of the third quarter of 1922 is used to indicate that this was the time at which the tests named below were taken. The names of the intelligence and placement tests taken by

the student at entrance to college, and the raw score on each, are noted. "Thorndike Intell. 1922, 102" indicates that Frank secured a score of 102 on the 1922 edition of the Thorndike Intelligence Test for high school graduates. "C. R. B. Physics A, 81" indicates that he secured a score of 81 on the Columbia Research Bureau Physics Test Form A.

Photo. In this rectangle paste a photograph of the student.

Line 24. *Discipline.* This line may be used to note any disciplinary action taken with respect to the student.

Line 25. *Advisers.* On this line in the appropriate year columns are to be put the names of the student's advisers each year. On this line also should be written under the notation *Acq.* (acquaintance) the name of at least one person who is intimately acquainted with the student. This acquaintance may be a faculty member, a former employer, a neighbor, a fellow student, or someone else.

Line 26. *Names of Colleges.* The name of the college which the student attends each year should be recorded. This information becomes especially valuable when photostatic copies are made for the use of colleges which the student later attends.

Line 27. *Reasons for Leaving.* Information for this line is usually hard to obtain but is of such importance as to warrant a separate space being provided for it. The most frequent reasons given will be finance, health and scholarship; but in many cases the real reasons will be very complex. Should the space here provided be insufficient add additional facts on the back of the folder. This may be done by the use of a reference or guide number in a circle. Each note on the back should begin with a corresponding number, and in addition the number of the line on the face of the card to which the note is thus keyed.

Line 28. *Irregularities in Course.* This line is to be used for entering such facts as excessive absence from class and laboratory exercises, reasons for taking less than the normal minimum amount of college work, permission to omit required courses, special permission to carry advanced courses, and any other irregularities which seem to need explanation.

Line 29. *Year.* This line duplicates the information of Line 3 in order that the second page year columns may be more easily identified.

Line 30. *Age.* This is a duplication of the information of Line 4.

Line 31. *Unusual Accomplishments and Experiences.* Any unusual achievement or experience should be noted on this line in the appropriate year column. Any unusual thing which the student does, whether it seems to have vocational significance or not, should be entered here. The entries on the sample folder may be taken as examples of the possible things which may be entered in this space.

Line 32. *Clubs, Fraternities, Offices.* All the clubs and fraternities to which the individual belongs and all the offices he has held should be included by name. The high school data can be summarized in the narrow high school column. If an individual holds the same office for more than one year, it should be indicated. In general, all the clubs of which he is a member and all offices that he holds each year should be indicated in the space for that year, even though he has held the same offices in previous years.

Lines 33-37. *Extra-Curricular Activities.* The activities that a boy engages in should be indicated by means of abbreviations and all honors or letters earned in such activities should be recorded. The degree of activity in a given line may be indicated by the use of exponents. If a student plays tennis very little the record would be t.; if he plays a great deal or regularly, the record would be t.¹; if he is an outstanding amateur or attains distinction, the record should be t.¹. Suggested abbreviations are as follows: fb. (football), b. (baseball), bb. (basketball), t. (tennis), c. (crew), tr. (track), p. (polo), wp. (water polo), s. (swimming), f. (fencing), hb. (hand ball), g. (golf), h. (hiking), cr. (cricket), hk. (hockey), l. (lacrosse). Formal recognition of skill in these activities such as membership on the Varsity team or on the Freshman or Sophomore team may be indicated by prefixing to these symbols V for Varsity, F for Freshman, So for Sophomore, etc. Wherever it is considered important the number of hours a week should be indicated; otherwise the space may

be used for other details that seem significant enough to be included in the permanent record. The non-athletic activities should be indicated in the same way, in as much detail as the space allows. Suggested abbreviations are as follows: dr. (dramatics), de. (debating), j. (journalism), ed. (editor), mus. (music). The effort should be made to make this record show exactly and concretely what the activity consists of, the degree of skill or excellence displayed, and the motivation, if these are unusual or definite enough to be significant.

Lines 37-40. *Vocational Experiences.* These four lines provide space for showing the type of work, the length of time the job was held, the pay a week, and the hours a week spent at the work. The entries should be as concrete as possible. Gainful employment during summer vacations should be noted in this space, as well as in Line 44. If the student is working for any reason besides necessity for support of self or dependents, a full statement of the motives for the work should be recorded.

Line 41. *Support of Self and Dependents.* The extent of self-support is to be indicated by fractions. If the student earns one-half of his own support in college, enter the fraction $\frac{1}{2}$, if he earns less, enter $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{6}$ or $\frac{1}{6}$ according to the degree of independence. If, in addition to supporting himself entirely, he supports others, the fact will be indicated by the amount the number or fraction exceeds one. Thus if he supports himself and mother, the entry would be the figure 2; if he supports himself and contributes one-half of the mother's expenses, the entry would be $1\frac{1}{2}$, etc.

Line 42. *Loans and Scholarships.* Indicate the name of the loan or scholarship and amount in terms of dollars a year or semester, as the case may be. Loans by outside agencies, relatives or friends should be noted, and data on liquidation of loans should be recorded whenever available.

Line 43. *Study Conditions and Hours of Study a Week.* Indicate here the conditions under which the student studies and the number of hours a week, if known. Give a description of the actual conditions if possible and not merely a subjective estimate of them. If concreteness demands

more space, write a general characterization in this space and write concrete details in a footnote on the back of the folder. Frank, in the sample folder, is indicated as having a separate room in his home for study. For students living at home, especially when there are younger members of the family, this is a significant entry.

Line 44. *Summer Experiences.* On this line should be entered just what type of thing the student has done each summer. If he worked, the type of work should be indicated. If the motives for this work were in the slightest degree unusual, they also should be stated. When the student did not work at all, the way in which he spent his summer should nevertheless be mentioned.

Line 45. *Educational Plans.* Record the general type of course which the student plans to take later or is preparing to take.

Line 46. *Educational Suggestions.* Enter on this line in the proper year column the type of course suggested by the personnel officer or interviewer. If this suggestion differs notably from the expressed choice of the student, the reasons for the officer's view should be outlined in a footnote.

Line 47. *Vocational and Professional Preferences.* List and number in the order of preference all vocations or professions that are being considered by the student.

Line 48. *Interests Reported.* On this line should be recorded the student's statement of his major interests in life both curricular and extra-curricular. Those having no apparent vocational significance should not for this reason be ignored.

Line 49. *Physical Disabilities.* The health officer's report of disabilities should be summarized on this line. The student's opinion about his physical condition should be entered as opinion until verified by competent examination. Any defect which may have a permanent or temporarily severe effect on his life, particularly in the college environment, should be recorded. In addition to the disabilities which have a rather obvious vocational significance, such as color blindness, deafness, loss of limb, etc., there are other physical disabilities which in a more subtle manner act as handicaps

in making social adjustments in the class room, on the campus, or later in life, which should also be mentioned. Some disabilities which might act as handicaps in making social adjustments are possibly unsightly birth marks, defective speech mechanism, an unpleasant voice, hare lip, etc.

Line 50. *Health*. This entry should also come from the health officer's records. Vague ailments, usually not definite enough for concrete description, should be noted. If chronic, they may be more important in the end than definite crises such as appendectomy, breaking an arm, losing an eye, etc.

Line 51. *Mental Health*. The health officer's and psychiatrist's reports should be the source of information for this line. For extreme cases, the psychiatrist's full report should be kept in the folder until the case is disposed of. In addition, a summary should be put on the back of the folder.

Line 52. *Social Adjustments and Home Conditions*. Indicate anything unusual concerning social life and home conditions. Avoid subjective estimates and try to give concrete details which are available and which may be significant.

Line 53. *Commuting Time, Hours per Week*. If the student lives some distance from the campus and is obliged to take more than a few minutes a day to go to and from college, some record should be made of the time thus spent. In cases where this is combined with hours of outside work for self-support, the two together may take on a significance which neither alone would have. In the sample folder the hours of commuting time were not the same each year, although the home address did not change. It was only ten hours a week during the last three semesters, instead of twelve as it had been before, because Frank had no Saturday classes during the last three semesters in college.

Line 54. *Student's Addresses*. The spaces provided here for changes in address are on the same time projection as the spaces on the inside of the folder. This enables one to enter a change of address whenever it occurs. Symbols are used to indicate home and school addresses and the telephone number. Frank, in the sample chart, had no school address because he lived at home throughout his college years.

Lines 55-60. *Personality Ratings*. Ratings may be entered

here, showing the time at which they were made and also their quality. The five lines, 55, 56, 57, 58, and 59, are to be considered a five-step scale in which the middle step represents the average and the spaces above positive deviations and the spaces below, negative deviations. The names of traits in the sample chart are not to be taken as a suggested list of traits but only as illustrative of the way in which the available ratings and the time at which they were made may be recorded.

Line 60. *Personality Measurements, Names of Tests Used.* On this line should be recorded the results of any objective or semi-objective personality measurements that may be available, with the names of the tests used. In the sample case of Frank Smith, the only such measurement available was derived from the first edition of the Strong Interest Blank, which indicated that Frank's highest interest was in Engineering.

Line 61. *Father.* The items of information entered on this line all concern the father of the student. First should be entered his name, then some statement of the condition of his health when the student entered college, then his religion, and if deceased, the date of death should be entered. In recording place of birth, the name of the state or, if of foreign birth, the name of the country is enough. If he is of foreign birth, the date of arrival in the United States should next be given. In stating the degree and kind of education, indicate the number of years in grammar school, in classical or technical high school, in liberal arts, engineering, or business college, etc. Whenever possible, the name of the college should be given. Great care should be taken in stating the occupation of the father. The entry here should be an answer to the question, Just what does he do? If this information is obtained from the student, one must guard against his tendency to conceal the real nature of his father's occupation by giving a general name for it. The address and telephone number are the last entries for the father.

Line 62. *Mother.* The information concerning the mother should be filled in in the same manner as for the father.

Line 63. *Step-parent.* If the student has a step-parent, the same information should be entered as was recorded for the parents. The fact of having a step-parent should not lessen the effort to secure and record information about the parents.

Line 64. *Guardian.* In case the student has a guardian, record the information concerning him as was done for the father.

Line 65. *Number of Brothers.* This line is for recording only the number of older and younger brothers and sisters.

Line 66. *Number who have attended college.* The entries of this line relate to the brothers and sisters indicated in Line 65.

Line 67. *Their Occupations.* List the occupations of the brothers and sisters indicated in Line 65. The same precautions in naming occupations should be taken here as were mentioned in connection with the occupation of the father, line 61 above.

Line 68. *Language Spoken in the Home.* Enter here the the language of the home before the student was ten years old, and also that used in his home after the age of ten. It should be noted that this is the language used in the home and not that which may be used in general by the student. Students who may speak English without accent are frequently without an adequate background in English because of the use of a foreign language at home. Such students often have severe difficulties in English composition. In the space after "Type of home community" indicate the size of the community in which the student lived (rural, village, town, and city) before and after the age of 10. The last space at the right end of the line is for entering the approximate date of the separation of the parents if they have ceased to live together. This entry with the date of birth of the student may give some idea of the home conditions under which the student has been living before he came to college.

Respectfully submitted,

SUB-COMMITTEE ON PERSONAL RECORD CARDS.

L. B. HOPKINS, *Chairman.* D. T. HOWARD,
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Personality Measurement

PERSONALITY has been the subject of discussion among philosophers of many lands for many centuries.

Meticulously they have sought to differentiate personality from character and temperament from either. And still within the groves of Academe the argument drones on, while in the market place men select laborers whom they can rely on to do certain things and city officials whom they can trust and leaders whom they will follow.

Although conscious of the philosophical problems, the Committee on Personality Measurement has not attempted to agree on definitions which would satisfy a logician but has endeavored to facilitate and make more effective the processes actually in use and likely to prevail for some time, believing that experimentation may reveal things of value in the business of society and even in the debates of philosophers.

Especially the committee has felt that the present widespread endeavor in school and college to discover the abilities of each boy and girl and to develop them fully—the program of the modern personnel movement—demands in addition to a record of achievements in mastering subject matter in the classroom and such tests of ability or aptitudes as may prove to be useful, some account of the student's personality.

The evaluation of personality is not new. But in recent years, especially since the entry of the United States into the great war created a sudden and tremendous demand for a way to classify men for specific purposes, there has been increasing interest in ways of measuring men. The experience of the American Army with a man-to-man rating scale has stimulated industrial organizations to use a similar scale or one adapted therefrom. Educational institutions have experimented with such rating scales. Naturally this device engaged the attention of the Committee on Personality Measurement in its first session at West Point, July 1 and 2, 1927.

At that time the committee discussed the validity of existing rating scales. The committee found itself in agree-

ment in its attitude. Not convinced that this device had yet been a success, the committee determined to give the best possible rating scale the best possible opportunity to prove its value in experiment. At the same time the committee undertook to prepare other ways of observing and recording personality.

At its meeting in Columbus, Ohio, in December, 1927, the committee decided to offer the colleges for experimental use: (1) a Rating Scale; (2) a Check List; (3) Suggestions for Describing Personality. Later it was agreed to omit the Check List. A tentative rating scale devised at the Columbus meeting and subjected to experiment at the University of Minnesota, the University of Michigan, the University of North Carolina and Stanford University, was revised at the Briarcliff meeting of the committee in April, 1928. At this time the conference approved the program of the Committee on Personality Measurement which now is laid before the colleges that may desire to cooperate with the committee in developing a useful way to measure personality.

I.

The Rating Scale

At the West Point conference it was agreed that rating scales should be regarded as provisional pending the development of objective measurements but that sufficient progress had been made in measuring certain personality traits to warrant further trial and that, in view of the small number of valid tests of personality traits, it must be recognized that rating scales would be necessary for some time to come.

In a desire to safeguard and improve procedures in making and using rating scales, the committee agreed on several principles: Only traits observed by the rater should be rated; only traits for which no valid objective measurements are now available should be rated; the number of traits to be rated should not exceed five, if teachers are to be expected to rate the traits of a large number of students; traits should be mutually exclusive; a trait should not involve unrelated modes of behaviour.

The rating scale devised at Columbus and revised at Briarcliff has been made in accordance with these principles. Furthermore, it has been developed with full knowledge of the experience of the Army, the Civil Service, industries, professions, and educational institutions in using rating scales, and especially with a keen consciousness of the needs which have led to their use.

During the summer of 1927 the personnel forms used by 78 universities and colleges were studied. These institutions used approximately 1,000 forms. Some of them were practically the same in all institutions: admission certificates, registration blanks, permanent records, transcripts of record, etc. On these forms were found 334 different questions which the institutions asked about incoming students. These were classified as follows: (1) Vital Statistics and General Information, 20 items; (2) Entrance Requirement Data, 39 items; (3) EDUCATIONAL RECORD, 43 items; (4) Interests and Extra-Curriculum Activities, 27 items; (5) Health, 16 items; (6) Social and Economic Background, 43 items; (7) Vocational Interests, 41 items; (8) Personality, 100 items; (9) Miscellaneous.

The number of the items in the Personality group, 100, is more than twice as large as the number in any other. This may be due to the interest of the colleges in such information, or it may be a sign of the intangibility of the material sought. About one-half of the institutions which provided forms for study use some kind of rating scale. Some 640 rating scale items were tabulated for statistical study. Miss Alice L. Berry, Director of the Department of Social Work and Chairman of the Committee on Personal Records, Macalester College, St. Paul, Minnesota, studied the material under the direction of Professor Donald G. Paterson of the University of Minnesota, and W. E. Parker, of the Committee on Vocational Counsel and Placement of the University of Michigan, studied the material accumulated in the Washington office. In studying 16 examples, Miss Berry found that there was very great diversity in form, procedure and definition. In this group of rating scales the number of traits rated varied from 4 to 12. Miss Berry reported 73

terms were used, including synonyms and names for what seemed to be identical qualities. "Integrity," for instance, seemed to be the same as "uprightness," although one scale used both. By interpreting these terms she reduced them to 24, grouped them in 5 general divisions, and calculated the relative importance attached to each section by the institutions, namely: (1) Scholastic Ability, Capacity and Interest, 34 per cent; (2) Social Qualities, 34 per cent; (3) Character Traits, 25 per cent; (4) Temperament, 16 per cent; (5) Physical Vitality, 13 per cent. No single trait was found on all 16 scales. Intelligence and industry appeared on 13 scales. Only 5 of the 24 appeared on half of them: Intelligence, Industry, Leadership, Dependability, Cooperation. Little agreement was found in the selection of traits, their number, definition, methods of indicating different degrees of the traits, methods of scoring, or form of the rating scale. The greatest agreement was on the use of a graphic scale with horizontal line for scoring.

Mr. Parker reported that he found the smallest number of traits to be rated was 5 and the average about 14, the largest number being 57. He learned also that the number of persons called on to rate students varied from 1 to 15, and included instructors in school and college, school principals, deans, employees, business references, ministers, friends, other students. The total number of "traits" listed in the forms of 38 colleges was 113. In Miss Manson's bibliography there is a list of 383 such traits.

Having learned what the colleges, as represented in the studied forms, want to know about their students, the six members of the committee presented at the Columbus meeting their decisions as to the most useful short list of traits. The vote of the committee was as follows: Responsibility, 6; Industry, 5; Initiative, 5; Originality, 5; Emotional Control, 5; Social Adaptability, 5; Personal Charm, 5; Leadership, 4; Service, 2; Scholastic Zeal, 2; Sagacity, 1; Tact, 1; Stubbornness, 1; General Effectiveness, 1; Follow Through, 1; Shyness, 1.

Believing that the number of traits should be not more than 5, the committee chose to experiment with those

receiving the most general approval. Discussion of these developed the belief that there might be some indication of relationship among them which might result in using some as indications of degree in another. It was also agreed that the traits themselves should not be named but that colloquial questions intended to bring out the information desired should be used. It was arranged that a graphic scale with 10 centimeter line and 10 divisional marks, but with directions to check anywhere on the line, might be useful in statistical study.

II

Description of Personality

Even more important than the opinion expressed by means of rating scale or check list is the basis for that opinion. Disraeli's wife is said to have declared that he had high moral courage but no physical courage. It might be said that she gave him a high rating in the one case and a low rating in the other. As his wife she must have had opportunity to observe the traits in question and thus to qualify as a reliable rater. But what were her standards of moral and physical courage? What did she mean by saying that Disraeli had no physical courage? She went on to explain that when her husband stepped under his shower bath he did not have the courage to pull the cord which brought cold water down upon him and she had to pull it for him! The rating by even a qualified observer is less helpful than the basis for that rating if one is truly to understand Disraeli.

Just so it is desired not only to know the rating of an individual by a given rater but to have at the same time indication that the rater is competent to see accurately significant modes of conduct and to record his observations effectively for the guidance of others. The rating scale indicates that some one is of the opinion that a student "seeks and sets for himself additional tasks." How has he shown this to the rater? A student in geology, perhaps he "has independently collected and classified correctly one hundred type specimens of fossils from the neighborhood of

PERSONALITY RATING SCALE
TENTATIVE FORM FOR EXPERIMENT

The information on this sheet is confidential

Name of student

Name of College

Selection and guidance of students are based on scholastic records of achievement, health and other factual records. Personality, difficult to evaluate, is of great importance. You will greatly assist in the education of the student named if you will rate him with respect to each question by placing a check mark on the appropriate horizontal line *at any point* which represents your evaluation of the candidate. It is not necessary to locate it at any of the division points or above a descriptive phrase.

If you have had no opportunity to observe the student with respect to a given characteristic, please place a check mark in the space at the extreme right of the line.

Please return this sheet to

	Avoided by others	Tolerated by others	Unassisted by others	Well liked by others	Sought by others	No opportunity to observe
How does his appearance and manner affect others?						
Does he need constant prodding or does he go ahead with his work without being told?	Needs much prodding in doing ordinary assignments	Needs occasional prodding	Does ordinary assignments of his own accord	Completes suggested supplementary work	Seeks and sets for himself additional tasks	

Does he get others to do what he wishes?

Probably unable to lead his fellows	Satisfied to have others take lead	Sometimes leads in minor affairs	Sometimes leads in important affairs	Displays marked ability to lead his fellows; makes things go
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How does he control his emotions?

Too easily moved to anger or fits of depression, etc.	Tends to be over emotional			
Unresponsive, apathetic	Tends to be unresponsive	Usually well balanced	Well balanced	Unusual balance of responsiveness and control

Has he a program with definite purposes in terms of which he distributes his time and energy?

Aimless trifler	Aims just to "get by"	Has vaguely formed objectives	Directs energies effectively with fairly definite program	Expressed in realizing well formulated objectives
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How well do you know this student?

Signature _____ Date _____ Position _____ Address _____

Revision of April 23, 1928.

Committee on Personality Measurement,
American Council on Education,
26 Jackson Place, Washington, D. C.

the college." A student of Elizabethan drama interested in the principles of Elizabethan staging, perhaps he "voluntarily built to scale models of the Blackfriars Theater and the Fortune Theater large enough to use in demonstrating methods of staging," and in another course he "wrote a one-act play; designed and painted the scenery; contrived original lighting; coached the players."

A father called on to rate his twelve-year-old son on the tentative rating scale checked the first three lines at the extreme right: (1) "Sought by others"; (2) "Seeks and sets for himself additional tasks"; (3) Displays marked ability to lead his fellows; makes things go." Naturally and properly the high ratings by the father were suspected of "halo." The supplementary statements give a clearer picture of the boy than the ratings themselves:

1. "Classmates have elected him president of his class for fourth successive year." "Chosen to make speech on behalf of teachers and pupils in publicly presenting their gift to pupil returning to Japan."

2. "During the winter planned and regularly worked upon voluntary geography project—a report of an imaginary trip around the world. Independently accumulated information and pictures from travel agents in United States and other countries, relatives who happened to be on a world cruise and others resident in India, wrote, typed and illustrated 74-page report for which he designed and painted appropriate cover."

"Finding in English assignment, the introduction to Burns' 'The Cottar's Saturday Night,' a reference to Robert Fergusson's 'The Farmer's Ingle' as a possible inspiration of Burns' poem, he looked up Fergusson's poem in the home library and compared it with that of Burns. At the same time desiring to read Burns in the Scottish way he mastered the phonetic system of Sir James Wilson's 'The Dialect of Robert Burns as spoken in Central Ayrshire' which he also found in the home library, and so interested the boys of his class in the pronunciation of Scottish words that even at the end of the year the lads still called each other by appropriate Scottish nicknames and used Scotticisms which they found in Burns and Wilson."

"At the age of eleven began collecting diatoms from local ponds and streams and studying their forms under his own microscope. Now possesses collection of microscope slides, including some presented to him by scientists in Department of Agriculture and Carnegie Institution, specimens collected by Shackleton, Scott and other expeditions.

3. "Formed club of six boys to play ping-pong twice a week during the winter in his own and other homes. Elected president of the club."

"Induced three class-mates to specialize in tennis and participate in tournament."

"Induced winner of second prize for seventh grade work in 1927 to join with himself (winner of the first prize) in offering a supplementary prize to the 1928 prize winner in that grade."

Observation is the basis of useful description of personality. Opportunity to observe is of course essential. Francis Galton in his essay, "Inquiries into Human Faculty," speaks of the splendid opportunities which teachers have for studying the characters of school children, and he advises them not to neglect making such observations. Today the teacher, because of the large number of his students, has less opportunity than he had in Galton's day. It has become necessary to afford the honest teacher a place on the rating scale to say that he has had "No opportunity to observe." And if the space for writing descriptions of personality remains blank, it is significant, perhaps, of the teacher's lack of opportunity to make useful observations.

It is important to confine oneself only to things which one has observed at first hand. If one has heard of but has not personally observed significant performances, one should be very careful to secure corroboration of the facts. Experience has shown that hearsay evidence, especially in serious problem cases, is likely to be unreliable.

Even if there is opportunity to observe, the teacher may not know what to look for. Let him remember that in general he is proceeding inductively to gather evidence which will enable him and others to know what kind of person a given student is, so that this student and those responsible for his development and placement may have evidence to use in guiding the individual. Of all possible situations in which the student's actions can be studied, those which answer the questions of the rating scale are likely at present to be most useful. But do not seek to isolate illustrations of conduct if they throw light on more than one phase of a student's personality, for, after all, the whole personality is the thing to be understood. Especially remember that the

effort is not to present an abstract quality like Greed or any other of the Deadly Sins as in a medieval morality play or even the types to which these gave way in the Elizabethan theater like those in Ben Jonson's "Every Man in His Humour," but an individual such as one finds in the theater of today and in life. Biography illustrates the same evolution from the utterly laudatory praise of a national hero to the true presentation of a real man. So let there be integration of the whole personality.

In recording observations one is practising a very high art—the art of Dante, Chaucer, and Shakespeare. "There are no worthier professors of this branch of anthropology," wrote Francis Galton,¹ "than the writers of the higher works of fiction who are ever on the watch to discriminate varieties of character, and who have the art of describing them." Shakespeare's characterization of Robin Ostler,² "who never joy'd since the price of oats rose," is more helpful in understanding Robin than a check mark to indicate that he is "too easily moved to anger or fits of depression, etc." From this and other great dramatists we can learn to describe character through significant actions and speech of the subject. After consideration of the student's own ways of betraying his personality through significant, consistent actions and utterances, one may enjoy, if he will, the art of giving the impression made on the observer at first sight and endeavor to succeed as Coleridge did with the Ancient Mariner or Stevenson with Mr. Hyde or Chaucer with the Somnour ("Of his visage children were aferd"), and if one wishes to be philosophical one can go on to generalize on the basis of all the evidence thus accumulated and perhaps assign the individual to a type or to a place on a rating scale. Discussion of the very important matter of motives may well be postponed until one has become a Henry James, unless they are unmistakably clear in the evidence.

The art of describing character is indeed a high one, but it is practiced in every college composition course. Usually it

¹ Nature, 1877, Volume XVI, p. 344.

² 1 Henry IV, II, i, l. 12

is undertaken with only a rhetorical purpose. An additional value can be given to the exercise and a genuine motive for its practice by all college men and women if the purpose of the composition teacher is combined with that of the personnel officer. Let the teacher of English composition present not only literary examples but some of the discussions of personality in recent psychological works like Hollingsworth's "Judging Human Character." Then let the student practice his art of writing even while recording an accurate picture of a classmate. It is, of course, well known that it is more difficult to describe an old and dear friend than it is to depict some eccentric janitor. Nevertheless the effort to write a useful account of the personality of a classmate is worth trying not only as a rhetorical problem but as one which will recur in business, politics, and indeed all social relations. With the rating scale in hand the student will direct his observations and write his description of personality with a new interest and satisfaction, because he is at once writing a theme and cooperating with the personnel officers of his college in aiding the development of a classmate.

Enlistment of students in this program will also lead to their realization that their college records, of increasing importance is securing advancement in the professions and in industry, are not merely grades won by a technique in which they have hitherto had scant confidence but records of achievement both in and out of the classroom made by teachers expert in observing and interpreting signs of personality and in assisting the student to develop it. If teachers and students can get together in such a program, there will be less talk about the traditional battle of teacher and student and there will be more cooperation in a great enterprise—the development of personality.

Suggestions for the Description of Personality

Describe briefly and concretely significant performances and attitudes which you yourself have observed.

Let your statements answer specifically the questions of

the rating scale by showing *how* the student manifested the qualities mentioned.

Do not be satisfied with the statement of an opinion concerning matters of fact, if the facts themselves can be presented.

Select those illustrations of conduct which are consistent with the personality of the student as you have observed and understood it.

Bear in mind that from as many accurate observers as possible the college desires to secure concrete descriptions of the student's personality as exhibited in many situations, and that the purpose is an understanding of the student's personality as a whole so that he and all concerned with his education may guide his development to its highest.

A Selected Bibliography

FREQUENTLY college presidents, deans, registrars and other officers concerned with personnel administration have asked for a short list of books which will enable them to understand the so-called personnel movement. So many books and articles have been printed in the last five years that it is difficult for any except specialists to examine all of them. The busy college administrator needs a short list. So members of the Committee on Personnel Methods have individually checked a trial list of seventy-five books for the purpose of determining which, in the general opinion of this committee, will be most serviceable.

It is to be observed that out of the great mass of periodical literature only two items are mentioned. These are included because they seem to members of the committee unusually useful in guiding a reader into a further study of the subject: The Bulletin of the American Association of University Professors containing an important bibliography, the Hopkins report in the EDUCATIONAL RECORD. The EDUCATIONAL RECORD, which is the quarterly publication of the American Council on Education, is to be found in the library and on the desks of each president and college dean of the members of the Council. The subscription price is \$2.00 a year. The *Personnel Journal*, formerly called the *Journal of Personnel Research*, is the organ of the Personnel Research Federation, of which Dr. W. V. Bingham is director. The address is 29 West 39th Street, New York. The *Journal* is issued bi-monthly and costs \$5.00 a year for those who are not members of the Federation. In addition to reports of research in the field, the *Journal* includes reviews of books and an annotated list of useful current magazine articles. The Federation also issues a bi-monthly service bulletin. Valuable mimeographed reports have been issued by the Associated College Employment Officers, the New England College Personnel Officers, and the Conference of College Personnel Officers (D. T. Howard, Personnel Department, Northwestern University). The Y. M. C. A., Personnel Division, 347 Madison Avenue, New York, frequently issues

useful reports and circulars. Of course the subject is frequently discussed in psychological, educational, and even general periodicals.

A library containing the following titles will afford the college administrative officers an acquaintance with several phases of the current study of personnel methods.

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Respectfully submitted,

SUB-COMMITTEE ON PERSONALITY MEASUREMENT.

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AMERICAN COUNCIL ON EDUCATION

The Modern Foreign Language Study in the United States¹

THE inquiry into modern language teaching, begun in 1924, has now been concluded. The committee in charge, operating under the American Council on Education and supported by funds appropriated by the Carnegie Corporation of New York, is now preparing to present its reports and liquidate its activities. The facts so far as gathered, were all in hand nearly a year ago, and the period intervening since that time has been devoted to bringing the material into shape for publication. This has turned out to be a much longer task than was anticipated, but the reports of the Committee and the special studies on which they are based are all nearing the final step of publication. Three monographs have indeed already been published by the American and Canadian committees, and one, Professor O'Shea's study of "The Reading of the Modern Languages After Graduation," by the Bureau of Education.²

¹ Report submitted at the annual meeting of the American Council on Education, May 4, 1928.

² The following is a list of the publications of the American and Canadian committees, including those which have already appeared and those which are to be published (Oct. 1):

Vol. I. *New York Experiments with New-Type Modern Language Tests*, by Ben D. Wood. The Macmillan Company, 1927.

Vol. II. *A Laboratory Study of the Reading of Modern Languages*, by G. T. Buswell. The Macmillan Company, 1927.

Vol. III. *A Graded Spanish Word Book*, compiled by Milton A. Buchanan. The University of Toronto Press, 1927.

Vol. IV. *Enrollment in Foreign Languages in Secondary Schools and Colleges of the United States*, compiled by C. A. Wheeler, and others with introduction and analysis by Robert Herndon Fife. The Macmillan Company, 1928.

Vol. V. *Achievement Tests in the Modern Foreign Languages*, by V. A. C. Henmon. The Macmillan Company, 1928.

Vol. VI. *Modern Language Instruction in Canada*, Part I. The University of Toronto Press, 1928.

In press are a statistical report, a German word book, and idiom frequency studies in Spanish and German. Ready for press and awaiting the final mechanical details are volumes on achievement tests, on the training of modern language teachers, and on the objectives, organization and methods of modern language courses, as well as volumes containing studies of prognosis in the modern languages, compilations of words and idioms based on frequency counts and a series of monographs on special topics differing as widely from each other as the influence of the learning of French upon the acquisition of an English vocabulary and experiments in sectioning classes in Romance languages in a middle-western university.

The EDUCATIONAL RECORD of October, 1927, contained a general summary of the findings of the Committee on Investigation of the Modern Language Study which traversed in detail its experiences and attempted to describe the general character of the results as well as to outline the tasks which it has been obliged to leave unfulfilled. The Committee on Direction and Control of the Study voted at its final meeting

Vol. VII. *Modern Language Instruction in Canada*, Part II. The University of Toronto Press, 1928.

Vol. VIII. *An Annotated Bibliography of Modern Language Methodology*, compiled by Milton A. Buchanan and E. D. MacPhee. The University of Toronto Press, 1928.

Vol. IX. *A German Frequency Word Book*, arranged and edited by B. Q. Morgan. The Macmillan Company, 1928.

Vol. X. *A German Idiom List*, compiled by Edward F. Hauch (*in press*).

Vol. XI. *A Spanish Idiom List*, compiled by Hayward Keniston (*in press*).

Vol. XII. *The Teaching of Modern Foreign Languages in the United States*, by A. Coleman (*in press*).

Vol. XIII. *The Training of Teachers of the Modern Foreign Languages*, by C. M. Purin (*in press*).

Vol. XIV. *Prognosis Tests in the Modern Foreign Languages* (*in ms.*).

Vol. XV. *A French Frequency Word Book*, compiled by V. A. C. Hemmon and George E. Vander Beke (*in ms.*).

Vol. XVI. *A French Idiom List*, compiled by A. Coleman and F. D. Cheydeur (*in ms.*).

Vol. XVII. *Studies in Modern Language Teaching* (*in ms.*).

in Toronto in September last to conclude its existence this spring with the completion of the reports and other studies and to ask the American Council on Education to appoint a new committee which, acting under the sponsorship of the Council, as the former committee has done, should seek to continue the work of research and experiment in the field of modern language teaching. This new committee will also undoubtedly seek to make use of the contacts which have been established with schools and colleges, with members of faculties of education and research organizations which are interested in experimentation in modern language teaching. It will find much to do, for, as has been repeatedly pointed out, an inquiry like that which has just been concluded does nothing so effectively as to lay bare what is still to be done.

The new committee will find the beginnings of a testing equipment assembled by its predecessor, and it will need, first of all, to improve and enlarge this. Its main activity, however, should lie in the direction of applying the present American Council tests and others yet to be devised to the solution of some of the ancient problems of our craft, problems which have awaited the development of a psychological technique for measuring achievement in the various skills and capacities in language use. The effect of age upon the learning of the modern languages; the actual psychological processes involved in the complex development which we call learning a foreign language; the effect of a cessation of language study upon knowledge of the language; the inter-influence of the acquisition of several capacities, such as oral expression, aural comprehension, comprehension through silent reading, active and passive command of vocabulary, etc., upon each other; the possibility of predicting success or failure in language study—all of these are questions which can be studied successfully only with the aid of carefully controlled classes and through a number of years. Furthermore, the search for the basic elements of foreign language material and the minima of these necessary for a reading knowledge, and experiments to determine the shortest road by which the American boy or girl can attain this

most desirable of all foreign language objectives, are undertakings which should be pushed forward without delay.

To meet these demands, the new committee will undoubtedly ask that any balance remaining when the responsibilities of the present study have been discharged shall be placed at its disposal, together with the income accruing from the sale of modern language tests published by the World Book Company under the copyright of the American Council and from royalties which may be earned by the curriculum studies to be published. It will necessarily have to seek funds for a campaign of experimentation and research extending over a period of years. Among other tasks which should have its immediate consideration is the establishment of a national center for the distribution of information to schools and colleges regarding all phases of modern language teaching.¹

In this final report it is not necessary to repeat a review of accomplishments. Since educational surveys and, in particular, surveys of curriculum subjects seem to have become the fashion, it may be of some interest and perhaps of suggestive value to those who are planning such undertakings to traverse a few of our experiences and, finally, to call attention to some of our findings which are of especial importance for school and college administrators.

The proper method of procedure in a national study of a curriculum subject is certainly the least standardized of all educational enterprises. Should such a study be entrusted to curriculum-subject experts or to experts in education or to both? The decision of this question brings advantages and disadvantages in whichever direction it may fall. The curriculum expert looks upon the task as one of apology and defense. If he finds fault too insistently with present methods or takes any other position than that of a thick-and-thin advocate, he hears from his colleagues of the guild that he is giving aid and comfort to the enemy. On the other hand, surveys conducted by experts in education are

¹ Cf. the program outlined by the Committee on Direction and Control, *EDUCATIONAL RECORD*, VIII, 4, 264 ff.

handicapped by too great respect for merely quantitative methods and too little regard for traditional methodology and for the experience of trained and observant teachers, which has also a really scientific value. The recent rapid expansion in the application of statistical methods to research has led in some quarters to an intoxication with the idea that education is an exact science and to a belief that all of its main problems can be solved by mass inquiries. The airy and oracular manner in which some educationists proclaim *a priori* theories regarding the social aspects of curriculum subjects is especially galling to the curriculum-subject teacher, most of all if he be a teacher of one of the older disciplines. He hears in them an undertone like the rhapsody of the Bachelor of Arts in Goethe's *Faust*:

The world was not ere I created it;
The sun I drew from out the orient sea;
The moon began her changeful course with me;
Who save myself to you deliverance brought
From common places of restricted thought?
I proud and free even as dictates my mind,
Follow with joy the inward light I find,
And speed along in mine own ecstasy,
Darkness behind and glory leading me!

Of course, no really fruitful curriculum study can take place without the aid of both experts in education and experts in curriculum subjects, but it is not easy to make the proud lion and the equally proud, though usually helpless, lamb lie down together.

There are also regional diversities which are in this country greater than most people dream of. This is especially true of the teaching of modern languages. Mathematics and Latin may have a certain national validity, but French in Massachusetts is something quite different, both for the school principal and the teacher, from French in Alabama and in Minnesota, and Spanish in the Southwest has a reality which it never attains in the north-central states. If there is ever to be a national curriculum for the secondary school, it will have to be elastic as regards the modern languages.

Another great handicap for a national study of any curric-

ulum subject is the short time within which it must be concluded. The classical investigation took three years. The financial backers and the official backers for the modern language inquiry have been very sympathetic as regards the extension of time, and we have been carrying on for over three and a half years, which will probably extend to four years before all of our reports are distributed. Nevertheless we have felt badly cramped for time from the first. As a matter of fact, after deducting the period for organization and preliminary surveys of the field and the long time which is necessary to prepare the manuscripts of the reports for the press and to put them into the press and through the press, two years is the maximum time that even the most long-suffering backers of such an enterprise can allow for assembling the statistical material from the schools and other sources, constructing and administering tests, outlining problems of research, finding persons to undertake them and gathering in the results. The rest of the time goes into getting ready and getting through.

Under these circumstances a curriculum-subject study has to depend very largely on quantitative methods. Statistics count for a great deal with most people, and these at least are something that can be gotten together. It is not a question of money alone. We shall spend on the inquiry and on publication, all told, about \$200,000, and the Canadian Committee about \$90,000, which is just about what the budgetary forecasts were throughout the course of the investigation. We can truly be grateful that the sum was no larger, for there is an absolute limit to the amount of money which an *ad hoc* organization, consisting in large part of volunteer workers, can safely administer, just as there is a sharp limit to the amount of executive energy which a group of men brought together for a temporary performance can develop.

The Modern Foreign Language Study had to start with the usual difficulties and jealousies, institutional and personal, and some quite particular ones as between the three modern languages most widely studied. It had to face the

necessity of getting together a national and regional organization and the much more difficult task of finding men who could be borrowed for one or two or more years from the institutions where they were working and who would then carry on for another year in the midst of their full-time duties. It had to decide how each task could be limited so as to bring it within the range of possibility. For this reason, the committee resolved to confine the inquiry to the secondary schools and to the corresponding levels of college instruction, leaving more advanced courses and all non-institutional work out of consideration. It has turned out that this was a wise decision, for the investigation has shown that even in the colleges less than 35 per cent of modern language students are found above the second year of instruction. Furthermore, another question had to be decided which was quite important for the direction of the investigation. Should the committee devote itself to a few basic problems or seek to mobilize teachers and scholars on as wide a scale as possible to participate in the gathering of facts and in experimentation? It chose the latter alternative. This decision was made with great reluctance, and time alone can show whether it was wise. It would certainly have been an inviting task if the committee could have concentrated its efforts and money on a few basic question, such as the best age for beginning the study of the modern languages, the length of time necessary to learn the minimum essentials for a reading knowledge, or the influence of practice in speaking and writing French, German or Spanish on the ability to read these languages. What it did was to map out a program which would explore present conditions in modern language teaching on as wide a scale as possible and to invite as many persons to cooperate as there was any probability of its enlisting.

The difficulty which caused the most trouble at the beginning was probably the result of war-time psychology. During and immediately after the war much was heard about the delimitation and definition of objectives and particularly about the objectives of secondary school instruc-

tion. It was a sort of revaluation of values, and our Committee on Investigation spent many hours in session trying to select the direct and indirect objectives, the primary and ultimate objectives, the scholastic and social objectives of modern language study in America, until we finally grew to hate the word "objective." It is now clear that much that is said about objectives in education is as genuine dialectics as was ever perpetrated by the medieval schoolmen, fitted only for orators at teachers' meetings or for syllabus mongers who try to fill the gaping, empty spaces in actual knowledge with beautiful and resounding phrases about "preparation for civic responsibility" and "cultural" and "esthetic values." At last it became clear that the only way to begin a study of modern language teaching was to adjourn the discussion of ideal objectives of instruction and take hold of the schools as a living organism which mankind has developed out of the necessities of existence and progress and not out of the logic of the metaphysical seminary; in other words to find out what the schools actually were doing in language study.

This could only be accomplished by the wide use of standardized tests. These were as yet for the most part lacking. It was necessary to make and standardize tests, and this was a process which absorbed most of the committee's time and energy for more than a year. It threw it behind its schedule and cost a great deal of money, some of which was as good as thrown out of the window. What was finally brought through seems little enough, testing as it does only four capacities—vocabulary, grammar, reading and writing—in place of eight or nine which should be tested; but at least these standards of measurement have been devised and applied to 50,000 students in this country from New England to California and to other thousands in Canada and England, so that it is possible to fix norms in school and college for the three modern languages up to eight semesters of training.

Long before these tests had been brought to a position where they could be applied with confidence, the committee

had realized the futility of trying to test the attainment of the ultimate objectives of modern language teaching at any time within the life of its undertaking. It realized, also, that objectives in any study vary with the factors of age, social and economic conditions, geographical situation, and a myriad other things which concern the schools. A little experience with testing showed that the American secondary schools are wrestling with problems of a very elementary character, fundamental questions concerning organization, selection and classification of pupils, the proper age and minimum period of study of the several curriculum subjects, the establishment of some standards of achievement and the enlistment of adequately trained teachers—all of which fall with tremendous incidence on modern languages.

Thus the program of objectives had to be translated into a series of problems of organization, curriculum-material, method, prognosis, etc., and these problems distributed as widely as possible among educationists and modern language teachers. Wherever it was possible, the mutual cooperation of both was solicited. Who should and who should not study the modern languages? What are the minimum bases of language in vocabulary, in grammar and in writing and speaking which the student who has entered on a foreign language course should acquire before he is permitted to discontinue study of the language? How do the various capacities influence each other in learning? How does the study of French or German or Spanish affect the learning of English? How do pupils learn to read? What are the minimum essentials of grammar for learning to read? What is the proper age to begin? What is the shortest time within which the study of the language may be carried on in the schools in order to make it worth while in the curriculum? Most of these problems, of course, still remain problems, and the amount that the results of the inquiry are able to contribute to their solution seems pitifully small. Some are questions which would require controlled classes through ten years to illuminate and others can only be attacked when the testing tools are much more refined than they are at

present. Controlled classes are just what an inquiry of the kind which has just been concluded cannot properly bring through. They need careful planning and, above all, trained supervision at every stage, and the facilities for all of this are lacking in the rush of a short-living undertaking which must be carried through by a temporary organization.

It may be said that the student of any curriculum subject must at the present stage of American secondary education set to work to devise and create the tools for measuring achievement at the very time when he should be employing those tools to determine existing standards, for there is no curriculum subject at the secondary school level which has at the present time anything like an adequate supply of such tools. That the Modern Foreign Language Study has failed to carry out the program which it set itself and is now bringing into press reports which should be already distributed, is due to this cause, which must also affect every other undertaking of a similar character. By the time the second year of the inquiry had passed, the committee was overwhelmed with material, and another six months had gone by before it could distinguish the town for looking at the houses. Even now it is painfully aware of a mass of facts which is insufficiently correlated and digested and which may, nevertheless, not be withheld any longer from publication.

The major undertakings have all gone through to some sort of completion. Highly analyzed statistics have been tabulated for about 83 per cent of the secondary school population and the same percentage of the modern language school enrollments in the United States, with similar figures for more than half of the college enrollment. Information regarding the training and present duties of 10,000 modern language teachers is ready for publication. National norms of school and college attainment in modern languages on the basis of a wide testing campaign have been set up, and the tests themselves and the achievement of the schools as measured by them have been carefully analyzed for this country, Canada and England. One can say, at least in a

general way and on the basis of statistical findings, what is now accomplished by the schools and colleges in the various semesters of study throughout the United States and Canada and by certain classes of schools in England. One can measure through the overlapping of achievement in the various semesters the utter lack of any real standards for classification, with its devastating results on the progress of brighter and slower students alike. One can see in cold figures the damage wrought by unsupervised teachers working with syllabi made up by the pernicious old method of patching together a new syllabus out of six old ones. One can now see how unfortunate for modern language teaching is the whole illusion, so carefully nursed by the propagandists of every curriculum subject, that any student who hopes for intellectual salvation must study that particular curriculum subject. Furthermore, cooperative undertakings on a large scale have been carried through by modern language teachers, with adequate statistical advice, in the search for the fundamental bases of French, German and Spanish for teaching purposes in the words and idioms and grammatical phenomena of these languages. The materials which were assembled have been organized in frequency sequences so that they present minima of the language which may be used as a rough basis of selection for successive years of study. In other words, the committee will be able to offer some suggestions for syllabus material based on logic and experiment rather than on tradition and subjective selection.

Having thus canvassed the general progress of the inquiry, let us now examine its general findings. What are the outstanding impressions that result from a study of this character, which has mobilized so many thousands of school principals and language teachers and private citizens, besides many technical scholars in the modern languages and in education?

In an investigation of such proportions one is inevitably forced into statistics. It can, I think, be said with assurance that no such body of American schools and colleges

has ever before been submitted to an analysis for the facts relating to any curriculum subject. The general figures are of course the least important. It cannot be a matter of particular interest to anyone to know that at the present time the public secondary schools are teaching French to approximately 440,000 children, Spanish to 305,000, German to 35,000, and Latin to 790,000 pupils; or that the total public school enrollment in the modern languages, taken together, is slightly over 20 per cent of the entire public school population and the private school enrollment in these languages nearly 50 per cent of the total private school population. Those interested in the secondary school curriculum will, however, look for the regional aspects of the enrollment, its relation to the other language offerings, especially the relationship between the modern foreign languages and Latin, and its relation to the different types of schools and in particular to the size of the schools and of the communities in which they are located. More important still for the student of organization and of standards in the schools are the distribution of foreign language pupils in the grades, the period when the study of the language is prevailingly begun and the continuity of foreign language study in the schools and colleges. It may therefore be of interest to analyze these aspects of the situation a little more closely, even though this results in the introduction of some rather monotonous statistical material.

In the first place, it is a significant, although not unexpected, discovery that national and regional percentages of modern language enrollment rise directly with the size of the community and with the size of the school. There are only two sections in the country where this is not true—New England and the Southwest. Here the modern languages invade the small communities, and it is precisely in these regions that French and Spanish enrollments show large percentages of the school population as compared with Latin. In New England the smallest communities have a larger proportional enrollment in French than cities of 30,000, while in the southwestern states, from Texas to the

Pacific, Spanish is a rural school subject to the same extent as it is an urban subject. Latin takes exactly the opposite direction, since its share in the total enrollment decreases regularly as we pass from the smaller to the larger community and also, although not quite so regularly, from the smaller to the larger school. It is relatively smallest in the largest cities and largest schools, so that while two-thirds of the Latin enrollment is to be found in schools in communities of less than 30,000, 60 per cent of all modern foreign language pupils live in communities above that figure.

These are conclusions that might have been inferred from the general public attitude toward modern language study and especially from the well-known difficulty which the smaller schools encounter in finding trained modern language teachers. It is probably well known also, that, nationally speaking, Latin is the most widely taught of all foreign languages. If we should divide the secondary school pupils of the country into groups of 100 each, we should find in each group approximately 23 studying Latin, 13.6 studying French, 9.2 studying Spanish, and 1.2 studying German, with a very tiny fraction engaged in the study of all the other foreign languages. The regional distribution of modern language study is, however, not so well known, and the exposure of this in detail will undoubtedly be an important contribution when the reports of the study appear from the press. There are, broadly speaking, only two sections of the United States which are vitally interested in the modern languages in the schools, if figures are significant. These are New England, New York and New Jersey on the one side, and the southwestern states on the other. In New England the French tradition persists. Out of 752 schools tabulated in the six states, only 31 have no French enrollments. New Hampshire leads the way, with nearly half of the students in the state enrolled in French classes. Massachusetts, for which we have nearly 100 per cent figures, reports only one high school without French. Latin follows as a second foreign language, but everywhere at a respectful distance.

In the middle Atlantic states, French has a strong hold and Spanish an increasing one, but both must yield the premier position to Latin. As we go southward and westward the Latin fetish grows in importance, and the ancient language forms everywhere a high percentage of the total school enrollment. The pupil interest in French and Spanish is scarcely anywhere one half so great. Even in Louisiana twice as many schools offer Latin as offer French. This was as great a surprise to one member of the Committee of Investigation as it was to find that tradition and the proximity of Spanish countries make Spanish in Florida twice as popular as French is. West of the Appalachians and north of the Potomac and the old Spanish line, Latin still rules the public high schools with little interference from the modern languages. Throughout the Middle West and Northwest 96 per cent of the schools report Latin students, and these students are three times as numerous as French pupils and five times as numerous as Spanish pupils.

It is only when we approach the border of the old Spanish territory that modern language interest rises again and here, of course, it is a Spanish interest. Oldahoina is the first state after one leaves the Atlantic seaboard where a modern language exceeds Latin in enrollment. In this state five schools offer Spanish to one that offers French. When we cross into the region where the flag of Spain once waved, Spanish studies rule supreme in the schools and 80 per cent of the public secondary schools teach this language. Even Colorado has three Spanish schools to one of French, and judging from the percentages of enrollment, French is only one-third as popular with students in this state as the language of Coronado and Narvaez. In California, Spanish appears on the programs of 95 per cent of the secondary schools and far exceeds both Latin and French in pupil popularity.

In the whole valley of the Mississippi and the Missouri, modern language interest is almost exclusively an affair of the large centers and large schools, while Latin rules in the entire field. For example, on examining the modern language

reports from the state of Iowa, where the state university has devoted much time and energy to successful experimentation in modern language teaching, we find that the total enrollment in all modern languages in the secondary schools is (or was in 1925-26) barely 6 per cent of the total school population. When one sees such figures it becomes quite clear why the Mississippi Valley and the northwest have little interest in the League of Nations nor any international problems. One can even begin to understand Mayor Thompson of Chicago. The thing which one cannot understand, except through the dead hand of tradition, is the vogue of Latin even in the smallest schools in the rural communities of the Missouri Valley. In the whole group of states between the Mississippi and the mountains and lying south of the Dakotas, Latin enlists nearly half of the students in the public high schools of less than 100 pupils. More than one-third of the secondary school population of Nebraska, for instance, is enrolled in Latin classes.

Those who have administrative problems at heart can hardly fail to regard as important any light which may be thrown by statistics on the period of beginning modern language study and its position in the school grades.

It is a well-known fact that the modern languages differ from all other school subjects in that they may be entered upon by the student at any stage of his learning career, from the seventh or even the sixth grade through all the junior and senior high school and college years, and even in the graduate years for research purposes.

It is only in New England and New York and the Southwest that any considerable number of pupils commences modern language study in the junior high school grades. In the regular high school grades the association of French or German or Spanish with Latin reacts to the disadvantage of the modern language, as 80 per cent of Latin students in the country begin that language in the 9th grade. For French the beginners in the 9th, 10th and 11th grades are singularly equal, while for Spanish beginners the 9th grade predominates. It is significant that the number of Latin

beginners in the last two grades of high school (the 11th and 12th) nowhere in the country teaches 10 per cent of the total number of Latin beginners. What is the proper age for beginning modern language study? No one can answer that question; but it is certainly of significance for the length of the period during which study is continued that 58 per cent of all students of French and one-half of all students of Spanish do not begin the subject until the tenth grade, while over 80 students of Latin begin its study earlier.

These figures are of importance when we come to consider the question of discontinuance of language study in school and college. This is closely related to the whole question of objectives, organization and methods, and indeed looms in the background of every question involved in modern language teaching. The figures collected by the Committee on this point are borne out by regional surveys, such as statistics published at various times by the North Central Association. They show that more than half of the secondary school students in each of the foreign languages, including Latin, are to be found in the first year of study. German scores the largest percentage in the first year and Latin the lowest, but the differences are not great. In the first two years of study we find 87.5 per cent of all French students, 92.5 of all German, 91.7 of all Spanish, and 86.6 of all Latin. A very small percentage, indeed, carries on into the fourth year. These figures do not take into consideration the rôle which dropping out of school plays in the default in the modern languages; but a rough calculation based on the statistics of grade distribution in the report of the Commissioner of Education for 1922 shows that pupils in the regular high schools drop the modern languages from 50 to 100 per cent faster than they drop out of school.

Many of these students could not continue the subject for a longer period because they began it only in the 11th grade. In general, however, this is invalid as a reason for discontinuance, for the figures show that while nearly 77 per cent of the French pupils in the public secondary schools of the country begin the course early enough to have continued

it for three years, less than 14 per cent of this group embrace the opportunity. Does any considerable number continue the subject in college? In partial answer to this question the Study has figures for the Freshman enrollment in 204 colleges of liberal arts, representing not far short of one-half of all the Freshmen in this type of institution in 1925. Of these, 21 per cent presented two points of French for admission, representing two years of school preparation, and less than one-half of these continued the study of the language in college.

The all-prevailing two-year course in the modern languages seems to afflict the colleges almost as badly as the preparatory schools. The committee collected figures from 293 colleges of liberal arts with an undergraduate enrollment of 259,000. These include, however, approximately 75 per cent of institutions whose baccalaureate degrees are accepted for graduate study by the Association of American Colleges. From these returns the interest in modern language study appears to be relatively twice as great in the colleges as in the secondary schools of the country, for if we may judge by the sample investigated, 57 per cent of the undergraduate bodies in 1925 were enrolled in modern language classes. It is a significant, and for the American colleges a lamentable fact that nearly 40 per cent of all the modern language students in undergraduate courses are in the first year of language study. In general, the colleges for women furnish here a more favorable picture than colleges for men; the number of advanced students—i.e., students above the second year of language study in French and Spanish—is larger and has increased more rapidly in women's colleges than in colleges for men and in coeducational institutions. French is prevailingly more widely elected in women's colleges than in men's colleges; the ratio is 50 per cent as compared with 39 per cent. German, on the other hand, is even more decidedly a subject for men's colleges, while the two sexes tend to study Spanish in relatively equal numbers. As a whole, French enjoys a considerable preference among college students over other modern foreign languages, en-

listing 29 per cent of all undergraduates; Spanish stands next with 17 per cent of the total enrollment, and German follows with 10 per cent. Finally, as documentary evidence of a richer modern language interest in the colleges than in the secondary schools, it may be noted that French is more than twice as popular, Spanish nearly twice as popular, and German, which is now distinctly a college subject, more than five times as popular in college as in secondary school.

The most outstanding result of the analysis of modern language enrollments in school and college is the astounding brevity of the courses pursued by an overwhelming majority of students. For 87 per cent of secondary school pupils in French classes and more than 90 per cent of those in German and Spanish classes, two years is the maximum period of study. In the colleges 55 per cent of all students of French are in the first two years of study; nearly half of all Spanish students and more than half of all German students are in the first year.

Does this mean that the American boy and girl look upon two years as the normal length of time in which to acquire a foreign language? School administrators and observers of education quite generally are gravely dissatisfied with the present results in teaching the modern languages, and the evidence brought in from test administrations in the past two years supports this criticism. The results of modern language teaching are such that they can be checked up with fatal exactness in after life. With marked regularity every year or two some college or university president or other apostle of education rises in our midst and solemnly and officially declares that modern language teaching is a failure. The candidate for the doctor's degree who after three or four years of disuse finds himself called upon to pass an examination in German; the alumnus who after wrestling for twenty years with the manufacturing or marketing of textiles takes a summer trip abroad; the scientist who is suddenly vis-à-vis an important untranslated article on nitrates—all take occasion to assail the utter uselessness of early instruction in French and German. Each forgets, of

course, that all of his algebra and geometry have been left to guard the schools, that he has forgotten every sentence from his four or more years of Latin except that which notes the tri-partite division of ancient Gaul and every play of Shakespeare except those that appear west of Broadway, but he resents it bitterly that two years of French or German did not give him the capacity, continuing amidst years of discontinuance, to apprehend or express thoughts in the foreign language.

We must, nevertheless, accept things as they are and seek such remedies as the conditions of the American school and college curriculum admit. It is quite certain that even in the present situation admirable work is being done in teaching the modern languages in certain American schools and colleges, although it is not fair of course to judge the secondary schools by what may be accomplished in colleges and in private schools where the pupil material is selected for ability and for its cultural motivation. These are conditions which it is not possible to transfer to the public secondary schools, where the modern languages are now fighting a difficult battle.

How can they be helped? All that can be done here is to point out a few of the directions which have been shown by experiment to offer fruitful possibilities.

1. *By a method of selecting students.* It is hard to see how definite and worth-while objectives can be attained in modern language courses unless there is some reliable method of eliminating incompetent students. It is for this reason that the Study has given a great deal of attention to the question of prognosis tests, and while the whole matter is still in its beginnings and the reports to be published are still inconclusive, they constitute, at all events, a beginning. Until adequate prognosis tests are devised, intelligence tests will have to suffice. At least with such tests as the committee has produced, it is possible to eliminate failures after a trial period of one or two semesters with greater certainty than before.

2. *By the administration of objective, standardised tests for*

the ascertainment of school and college norms and for diagnostic purposes. These will act as a critic and a corrective for every experiment in curriculum and method.

3. *By the development of progressive curriculum material based on studies of word and idiom frequencies* as well as on the study of the subject matter of reading tests for cultural material, such as history, national customs and *realia* of various kinds. This will sharpen the objectives of instruction and establish validity for tests.

4. *By a study of the minimum essentials of grammar, vocabulary, idiom, etc., to the end that the process of learning to read may be accelerated.* It is not possible here to go into the question of the relative importance of objectives, but it seems certain that reading is quite generally regarded as the first objective for the American student. Fruitful experiments have been begun at the University of Chicago and elsewhere for the development of techniques for teaching students to read, including experiments with the minimum essentials in grammar and the minimum and optimum of vocabulary selection. If two years is to remain the period which 85 per cent of our students will give to foreign language study in school and almost as large a percentage in college, the best method of investing this time for the primary objective is a problem which challenges the ingenuity and persistence of administrators and teachers alike. No other nation faces it in the same way.

The Modern Language Study and Canadian Committee will not be able to open any royal roads to success in meeting these or any other problems of modern language teaching. All that they can hope to do is to lay bare the difficulties of the situation and show some of the directions in which research and experiment may lead to improvement.

ROBERT HERNDON FIFE,

Chairman.

Occupational Destination of Ph.D. Recipients'

IN AN earlier paper¹ the writer reported the present occupation of 1,464 persons who had received the degree of doctor of philosophy from the University of Chicago, this being the total number of recipients of this degree from the beginning of the University to December, 1924. The tabulation showed that 77 per cent of all such recipients now hold teaching or other positions in high schools, colleges and universities, public and private, in this country and abroad. The remaining 23 per cent are engaged in business and in professional work other than education. The significance of this finding, which was merely confirmatory of general opinion in regard to the matter, seemed to the committee² for whom the study was made to warrant an analysis of data from other graduate schools which are members of the Association of American Universities.

The attempt to secure such data already analyzed from these institutions proved abortive, since it was uniformly reported by deans of graduate schools that no study of the matter had been made. The one exception to the flood of negative replies was the case of Johns Hopkins which had but recently published an alumni directory and a classification table showing the present occupation of its doctors. From three institutions³ recently published alumni directories were received.

Fortunately, these directories give explicit information as to the nature of the degree received, the field of specializa-

¹ A report prepared for the Committee on Professional Training of the North Central Association of Colleges and Secondary Schools.

² Haggerty, M. E.: "The Professional Training of College Teachers." North Central Association Quarterly, Vol. II, p. 108 ff.

³ Committee on Professional Training of College Teachers of the North Central Association of Colleges and Secondary Schools.

⁴ Harvard University, Princeton University, University of Wisconsin.

TABLE I—HARVARD PH.D. RECIPIENTS

Major Field	Public Universities										Sub-Total	Private Universities	Foreign Universities	Technical Schools	Teachers Col. and Normal Schools	Other Professional Schools	Other Education	Government	Special Research	Grand Total	Per Cents
	1 Professor	2. Assoc. Prof.	3 Asst. Prof.	4 Instructor	5 President	6 Dean	7 Dept. Head	8 Other	9 Curator	10 Technician											
Indic. Phil.	12	4	3	2		1	2				22	42	2	2			10	1	2	7	.46
Archaeology																				10	6.9
Anthropology																				12	8.5
Art																				10	6.9
Biology	6	7	3	1		1	1	3		1	15	26	4	2	2	1	2	1	8	21	15.2
Botany																				6	4.1
Gen. Physiology																				10	6.9
Zoology											16	55	5	13	2		1	6	11	159	106.2
Chemistry	12	9	2	3		3	2				17	51	8	3	2		1	8	16	244	166.4
Education											5	10	2						4	24	16.6
Fine Arts																					
Geology																					
Hist. and Government	22	6	4	1		2	2				4	19	2	1			1	8	18	52	35.5
Mathematics	12	6	4			2	2				22	54	9	1				5	18	102	70.4
Medicine	18	6	4			1	1				30	54	4	5	1			7	27	62	42.1
Mod. Languages	20	7	7	1		5	1				100	25	4	1				3	14	32	22.1
Germanic Language	17	2	2								53	105	10	3	5				14	196	135.3
Romance Language																				2	1.4
Classical Literature																				7	4.8
Music	17	3	3				2				22	34	1					1	1	10	6.9
Philosophy	17	3	5	5		4		1			3	5	1							42	28.6
Physics	4	2	2								6	87	8	3	2	1	3	4	17	183	122.2
Semitic Lang.											2	5								5	3.4
Applied Biology	1	1								1	2	5							6	16	11.1
Engineering																				7	4.8
Metallog.																				1	.93
Mining																				1	.93
Totals	142	61	52	15	2	23	13	1	3	2	314	493	76	30	14	8	37	54	280	1506	1000
Per Cents	9.4	4.1	3.5	1	.14	1.5	.86	.07	.2	.14	20.8	46	5	2	.93	.53	2.5	3.6	18.6	100	

*D. Sc.

† Other occupational classifications used but not represented in the Harvard data for public colleges and universities are Lecturer, Tutor, Fellow, Librarian, Researcher, Student.

‡ Details of ranks, etc., omitted from this table.

tion, and the name of the institution where now employed with rank or title, or the business in which the individual is now engaged. In the initial tabulation full use was made of all these details. Thus the Harvard data distributed themselves as in Table I.

Material for this type of distributions was finally secured from three of the large private institutions and from three state universities. The data for the University of California was furnished in tabulated form by Dean Charles B. Lipman, Miss A. B. Flournoy, and Miss Carmel D. Riley. For Harvard, Princeton, Chicago, Johns Hopkins, and Wisconsin use was made of printed alumni lists, and the Minnesota material was taken directly from the records in the office of the Graduate School.

From the summarized data appearing in Table II, it is clear that teaching and other educational work claim the major portion, almost three-fourths, of those who receive the doctor's degree from American universities. It is not far from the truth to say that for the greater number of those who become doctors of philosophy the degree is essentially a teaching degree. It is the badge of scholarship requisite to the highest teaching positions, and makes entrance into the more modest ranks easier than it would otherwise be.

Certain interesting facts of the present occupation of doctors of philosophy are apparent in the detailed distributions of data (Table III). A small percentage of doctors, 2.2 per cent of the entire group, are in business. All of the institutions share in this total. The actual number is probably greater than is shown in the *business* column since a portion of the *unknown* probably belong here. Possibly 3 per cent would be the approximate figure. The professions, broadly interpreted, have claimed about one-sixth (16.3 per cent), law, medicine, and the specialized scientific technologies comprising the major portion of this group. Of the sciences chemistry claims the largest number.

The degree to which research is the major occupation may be gleaned by a study of the separate columns in which

TABLE II.—*Number and Per Cent of Ph.D. Recipients in Educational Work*

Three Public Universities and Four Private Universities

	No. in educ.	No. not in educ.	Per cent in educ.	Total No. Ph.D's.
<i>Private Universities:</i>				
Harvard University.....	1,172	334	77.82	1,506
Princeton University.....	232	98	70.30	330
Johns Hopkins University...	935	448	67.61	1,383
University of Chicago.....	1,133	331	77.39	1,464
Total in Private Universities..	3,472	1,211	74.14	4,683
<i>Public Universities:</i>				
University of Wisconsin....	142	100	58.68	242
University of California....	379	155	70.97	534
University of Minnesota....	204	126	61.82	330
Total in Public Universities...	725	381	65.55	1,106
Total Public and Private Universities.....	4,197	1,592	72.50	5,789

research workers are listed. If we include the *research foundations* column, which probably designate administrative officers as well as technical workers, there are seven of these columns. Of the total of 5,789 doctors from the seven institutions, 711, or 12.3 per cent, describe their work as that of research. The Chicago data are not distributed, but if this were done the percentage would be approximately 16.4. Slightly less than 3 per cent are expert workers in government service, local, state, and national.

It is not possible to learn from the data in hand the degree to which doctors listing other occupations such as teaching, administration, etc., actually engage in research. This factor varies, of course, with the employing institution, the field of specialization, and the personality and abilities of the individual. Dismaying enough it is to find that the technical schools and teachers colleges list almost none of these doctors as researchers. Making a liberal allowance for research as a supplementary occupation to one of major

concern, it would still be clear that research is not the occupational goal of any large portion of the men and women who receive doctorates from American universities.

The bearing of these data upon the objectives and administration of graduate schools is a matter that may claim some attention from these training institutions, and, as well, from those other institutions which consume their products. There is a widespread conception of the graduate school as an agency for the promotion of research and the training of research workers. The almost universal requirement of the research thesis and the evidence of capacity for productive scholarship as prerequisites for the doctorate is testimony to the general devotion to this ideal.

If research were to be regarded as the exclusive aim of the graduate school or even as its primary objective, the present occupation of its graduates would seem eloquent testimony to its failure to achieve its intention. Either the market for researchers is too limited to absorb the ever increasing output, or the quality of the men at the end of training is inadequate to prevent wholesale abortion of good intentions. One may have his choice of explanations, but the evidence is clear that American graduate schools are not confined to the production of research workers. Primarily they are doing other things. This finding is in line with widely held opinion, and is supported by every study of the problem which has been made. Jernegan from his recent study¹ of the productivity of history doctorates infers that about 25 per cent are productive after receiving the doctorate. The other 75 per cent are teachers only or are engaged in non-educational work.

Since these data have an important relevancy to the character of American college and university faculties they may be related to the results of a recent investigation reported (1928) by a committee² of the North Central Association.

¹ Jernegan, M. W.: "Productivity of Doctors of Philosophy in History." *American Hist. Rev.*, 33: 1-22, 1927.

² Committee on Faculty Training. President Charles Henry Rammelkamp, Chairman.

TABLE III.—Per Cent of Ph.D. Recipients in Various Occupational Fields, Four Private and Three Public Universities.

Institution	Public Col. and Universities		Public Col. and Universities		Foreign Col. and Universities		Technical Schools (6)		Teachers Col. and Normal Sch.		Other Pro. Schools	
	Teach. Adm.	Re-search	Teach. Adm.	Re-search	Teach. Adm.	Re-search	Teach. Adm.	Re-search	Teach. Adm.	Re-search	Teach. Adm.	Re-search
<i>Private Universities</i>												
Harvard.....	20.7	.1	45.5	.5	5.	.1	2.	.3	.9		.5	
Princeton.....	13.		45.5	2.1	4.8	1.2	4.3	.3	.3		.6	
Chicago.....	25.5 (a)		35.5 (a)		6.6 (a)		4.4 (a)		2.7 (a)			
Johns Hopkins.....												
<i>Total Private Universities.....</i>	<i>19.2</i>	<i>.1</i>	<i>35.7</i>	<i>.4</i>	<i>4.9</i>	<i>.1</i>	<i>2.5</i>	<i>.03</i>	<i>1.5</i>		<i>.3</i>	
<i>Public Universities</i>												
California.....	41.9	3.	18.7	.9	1.7	1.5			1.5		.4	
Wisconsin.....	31.8	1.7	22.3		.4		.3		.4		.3	
Minnesota.....	34.2	3.3	16.4	.3	4.2				.9			
<i>Total Public Universities.....</i>	<i>37.4</i>	<i>2.8</i>	<i>18.8</i>	<i>.5</i>	<i>2.2</i>	<i>.7</i>	<i>.1</i>		<i>1.1</i>		<i>.2</i>	
<i>Total Per Cent.....</i>	<i>23.3</i>	<i>.7</i>	<i>31.9</i>	<i>.4</i>	<i>4.3</i>	<i>.3</i>	<i>2.</i>	<i>.02</i>	<i>1.4</i>		<i>.2</i>	

Institution	Other Education (c)		Higher Education		Government Service		Professions (f)	Business	Research Foundations	Misc. and Unknown	Total Cases
	Teach.	Re- Adm.	Teach.	Re- Adm.	Adm.	Ex- perts					
<i>Private Universities</i>											
Harvard.....	2.5				.9	2.7	8.9 (g)	2.3	2.1	5.4	1506
Princeton.....	2.1				1.2	4.2	13.6 (g)	3.3	1.2	6.1 (n)	330
Chicago.....	2.3					1.4	17.3 (g)			5.3	1464
Johns Hopkins.....	3.2		56.5 (b)	7.9 (b)		1.1	14.7 (c)	3.8		12.7	1383
Total Private Universities.....					.5	2.	16.8	2.6	.9	9.4	4683
<i>Public Universities</i>											
California.....	1.7					4.3	14.8 (g)	1.5	1.9	6.6	534
Wisconsin.....	1.7				3.7	4.5	12.8			20.7 (n)	242
Minnesota.....	1.8				.3	8.8	16.1 (g)	.9	2.4	9.7	330
Total Public Universities.....	1.7				.8	5.7	14.7	1.	1.6	10.6	1106
Total Per Cent.....	2.9				.6	2.8	16.3	2.2	1.1	9.6	5789

- (e) Data from University of Chicago not distributed according to above categories—some listed as teaching probably in research, some listed as in professions probably in business.
- (f) Data from Johns Hopkins not distributed. Above per cents include all who are in higher education.
- (g) Includes 21 cases distributed as follows: 5 in Public Health, 6 in Home-making, 2 in Other Unskilled Occupations, and 8 Farmers.
- (h) Includes 53 cases or 9.9% of California total listed as Investigators, probably same as Technicians, also 1 Farmer.
- (i) Includes Business College, High School, Academy, Elementary School, Superintendent of Schools and private tutor.
- (j) Includes Law, Ministry, Journalism, Medicine, Technicians, Library and Museum, Work of Engineering, Music, etc. Technicians are those doing work in a highly specialized field, such as Chemists, physicists, biologists, Consulting Engineers, etc.
- (k) Of the total number listed as Technicians Harvard has 38 of 86, or 43.5% in Chemistry; Princeton 23 of 36 or 63.9%, California has 26 of 53 or 49.1%, and Minnesota has 15 of 30 or 50.3%.
- (l) Miscellaneous Occupations 5 or .9% of total of 330 from Princeton and 4 or 1.7% of total of 241 from Wisconsin.
- (m) By Technical Schools in most schools of technology, such as Carnegie Institute of Technology.

This study gives the facts for one hundred sixty-three colleges and universities having 8,743 faculty members. Of this total, 2,968, or 33.9 per cent, have the doctor's degree. Five thousand seven hundred seventy-five, or 66.1 per cent, have less training, 58.1 per cent have no more than a master's degree, and 24.8 per cent only a bachelor's degree. For twenty-three representative universities and thirty-five representative colleges the figures are slightly higher—72.4 per cent of doctors for the universities and 49.8 per cent for the colleges.

If research as a major interest claims so meager a portion of the doctors as our study shows, then it is clear that in faculties claiming so small a fraction of doctors the business of research is all but negligible. The truth is that *these faculties are teaching faculties* engaged with students who are too immature for the business of investigation, and with bodies of information that are far short of the frontiers of knowledge. It is also true that almost without exception these faculties have had no training for research in the activity which claims all but a fraction of their time and energy, namely, in the problems of education. While some of them are sufficiently trained to conduct research in the subject matter of their choice, if the conditions of their employment encouraged such activity, they are wholly without technical skills or the essential attitudes for investigation in the main occupation of their lives. They produce nothing of value in subject-matter fields because either the essential initiative or the conditions are lacking. They add nothing to our knowledge of education because they have never learned how to do it.

It is clear from an examination of the data that the occupation which exceeds all others is teaching, primarily college and university teaching. Interestingly enough, the data show that the doctors from private universities are predominantly to be found in private colleges and universities, and those from state universities are in public colleges and universities. About sixty per cent (not including the Hopkins data) of all individuals are engaged in college and university

teaching and administration, and an additional six per cent are teaching in other types of schools.

In view of the fact that teaching is the predominant occupational destination of Ph.D. recipients, it is pertinent to inquire what the graduate schools are doing to prepare students for their future business. The present study provides no material answer to this query, but in the study already noted⁷ it appeared that their efforts are confined to two things: the exploitation of subject matter with the techniques of scholarship relevant thereto, and some form of apprentice teaching. Practically nothing is done by way of specific instruction for the business of college teaching, and there is evidence of hostility on the part of some graduate schools to such instruction. The reasons usually given for failure to require or even to offer such instruction are lack of time on the part of the student, the absence of need for such instruction, or the inconsequential character of what students of education can offer to the aspiring doctor.

To the host of college instructors that engage in this enterprise the American graduate schools add an army of young doctors each year.⁸ Does this increment of teaching personnel add anything of professional equipment of college faculties? Apparently not.

The writer has no intention of debating this issue in the present paper beyond calling attention to certain easily understood facts. In about four hundred American colleges and universities attempts are being made this year to improve the education provided for students.⁹ In the main these attempts center about four problems, *the curriculum, methods of teaching, organization and administration, and the abilities and interests of students*. It is fair to say that for

⁷ Haggerty, M. E.: "The Professional Training of College Teachers," North Central Association Quarterly, Vol. II, p. 108 ff.

⁸ Hull, Callie, and West, Clarence J.: "Doctorates Conferred in Science by American Universities."

Year.....	1917	'18	'19	'20	'21	'22	'23	'24	'25	'26
No.....	373	293	180	328	334	454	575	609	631	740

⁹ Unpublished study of the North Central Association Committee on Professional Training.

the most part the persons who are attempting these improvements have had no specific training for the work they are undertaking other than that gained in the graduate schools. This, with native ability and "experience" makes the total equipment of these would-be-improvers of American education. Their psychology, generally gained at second hand, is usually more popular than profound, and they are curiously free from any belief that there are "principles" of curriculum construction.

It may fairly be asked whether the time has not arrived to face squarely the obvious facts. The graduate schools of American universities are essentially teacher training institutions and upon the kind of training which they offer and require of their doctorate candidates will depend the character of our college faculties and the quality of college education. Is it too much to ask that in this program of graduate training the student should be required to give some attention to the problems of education—problems which will constitute the student's chief concern once he is launched on his professional career?

M. E. HAGGERTY.
University of Minnesota.

Federal Legislation'

AVIATION rather than legislation has changed the world for educators the past year. Geography has at last become spectacular. Maps of the Atlantic, of the Caribbean and of the North Pole have been taken out of the geography books and spread on the front pages of the newspapers. Distances interpreted in hours of airplane travel, have for the first time, a denominator common alike to land and sea, plain and mountain. Even the dullest school boy begins to feel that he possesses his world because he has throbbed across it with Lindbergh and viewed it at first hand with Fitzmaurice. To take the wings of the morning and fly to the uttermost parts of the earth is no longer reserved for the imagination of the poet; it is the commonplace thought of the slowest man on the street. The speedometer has replaced the yardstick. The theater, so much more responsive to the thought of the day than our representative assemblies, is full of references to the new standard, with the recurring complaint, "these aviators are making it hard for the rest of us; sons expect so much more of their fathers, and girls so much more of their suitors, in the way of speed and daring."

To a world of this mind, the slow grinding of the wheels of legislation is a bore. Even Lindbergh's heroic attempt to quicken the heart beats of congressmen by free airplane rides did not greatly alter the rhythm. The legislative machine appears not only not heavier than air; it has no internal-combustion engine of its own, sufficient to give it motion and direction among contending winds. It is coming more and more to conceive itself as a balloon, whose function it is to move only as, and when, the wind of popular interest blows. It feels it cannot choose its port or modify its speed. Ask any senator or congressman why there is no

¹ Report of the Committee on Federal Legislation presented at the annual meeting of the American Council on Education, May 1928

action on this or that measure and the answer will be, "There is no popular demand. We do only those things we are compelled to do by pressure from without." It is a mistake to think of Congress as an aeroplane. You should think of it as a balloon. To understand movements in Washington, you must direct your attention, as the weather man does, to the Highs and Lows out toward the Rockies or the air currents along the Mississippi.

The Council printed in the January record a list of the more important bills affecting education. I will not take your time to mention them here. Since January some have been added to the list which I shall speak of hereafter.

The optimistic opinion expressed in the Record that the Curtis-Reed bill (S 1584-H.R. 7) to create a Department of Education would receive more attention in the present session than it did during the Sixty-Ninth Congress has proved a delusion.

With Governor Smith looming up as Democratic nominee for President, all political questions on which the Catholic Church or Anti-Catholic Church organizations have taken a definite stand are taboo for public discussion. Neither Republicans nor Democrats want to "wake the baby," and the cry is Hush! Hush! The parties would have liked to see the same policy prevail in the case of that other lusty baby "Prohibition," but it looks as if McAdoo for the Democrats and Butler for the Republicans had irremediably awakened that baby, so that is must be considered in any plans the parties make for a pleasant evening.

The friends of a Department of Education, on the other hand, have from the first tried to avoid raising the question of Church and State in Education. They do not think it is a question so easily solved as Mussolini seems to think in his offhand judgment of Solomon, by saying to the Church, "You take and educate the spirit, and I will educate body and mind." The hope still prevails in this country that it will be possible in the future, as in the past, for the two systems, both authorized by the state, tax supported and voluntary, to continue side by side and provoke one another

to good works. For this reason the friends of a department would prefer, when the department comes, that it should come as the department of all educational enterprise, not as the department of one faction which has won in a factional strife. They have tried, therefore, to avoid joining issue with that alignment of forces. It would be well if our Catholic friends would also see, as the wisest and most far-sighted among them do, that they have even more at stake in this policy than the state systems have. For as surely as they carry their opposition to the point of attempting to frustrate the legitimate aspirations of American education as a whole, they will antagonize state education to a point that may endanger the very existence of parochial and voluntary education.

The baby may sleep through the noise of a presidential campaign, but it is doubtful. Already it has been necessary, I am told, to ask Mr. Hoover where he stood on the question of a Department of Education, as Senator Borah asked on the prohibition question, and to secure the recall of campaign material prepared in Mr. Hoover's name by his over-zealous friends. If Governor Smith should be nominated, I suspect that his friends will have cause to regret that the baby was not waked earlier, for sleeping babies have a way of growing overnight into uncontrollable lads.

Hearings on the bill were held by the House Committee, April 25, 26 and 27. The Council was represented by Dr. Mann, Dr. Judd, and the chairman of this committee. The testimony will be printed later at government expense and will be available for all.

The Committee of the House has been increased in membership from 15 to 21. It is perhaps significant that the new members bring the number of adherents of the Catholic Church on the committee up to five, which indicates an interest in public education among the Catholic members of the House somewhat out of proportion to the total number in the House membership, though the ratio of 5 to 16 is not perhaps excessive with reference to the total population of the United States.

While the bill for a department does not seem to be making great progress, it has had the curious effect of stirring those who are opposed to it, to show, by increased appropriations to the present educational offices, that the purposes of a department can be otherwise accomplished.

Thus the last Congress appropriated \$117,000 to the bureau to conduct a survey of the Land Grant Colleges, and Senator Phipps has introduced a bill (S. 1273) authorizing an increased appropriation of \$250,000 to the bureau for certain studies. Taking advantage of this attitude, Dr. Mann has prepared a bill which would authorize an appropriation of \$500,000 to the Bureau of Education for a "Two-year study of the present organization, administration, financing and work of public secondary schools of all types and of the articulations among them and colleges and normal schools."

The Senate has passed and the House Committee on Education has formally reported and asked for a vote, on a bill authorizing an additional appropriation to the Federal Board for Vocational Education, which will eventually amount to \$6,000,000 additional annually to be paid to the states on the fifty-fifty basis to extend instruction in state schools in agriculture, in industrial trades and in home economics. The bill was introduced with the recorded approval of Secretaries Hoover, Jardine and Davis, although declared by the Bureau of the Budget to contravene the policy of the administration and although obviously in direct conflict with Mr. Coolidge's message warning against the dangers of the extension of the fifty-fifty subsidy system. A further bill, H. R. 12691, has been introduced by Mr. Oldfield, which would extend the field of operations to independent high schools and academies and authorize a \$500,000 additional appropriation for the purpose.

A bill H. R. 10297 has been passed authorizing the increase by \$1,440,000 annually of the appropriation to the Department of Agriculture for cooperative extension work in agriculture and home economics, for men, women, boys and girls, at least 80 per cent of the money to be used for

the salaries of county extension agents. The line between the educational work of the Vocational Board and the educational work of the Department of Agriculture seems to be that, while both may encourage and direct the work of children in the fields, the instruction given by the Vocational Board must form a part of a school curriculum.

Still another department has been asked to take a hand in education by H. R. 11274, introduced by Mr. McSwain, which provides that the Postmaster General shall furnish to the chief educational administrative officers of the several states or territories sufficient stamped envelopes, without expense to the states, to care for all the official correspondence of the educational administrative officers of the states, and of the subdivisions of the states.

There has been introduced by Mr. Berger a bill (H. R. 10155) authorizing the appropriation of \$2,000,000 annually for five years to the Bureau of Education for the purpose of cooperating with the states on the fifty-fifty basis to combat illiteracy.

There has been introduced by Mr. Zihlman a bill (H. R. 12140) to increase the allowance, under the Land Grant Act of 1867 to the University of Maryland, \$50,000 a year, to compensate them for the instruction given residents of the District of Columbia.

A bill (S. 2450) introduced by Senator Reed and sponsored particularly by the Women's Colleges, together with Harvard, Minnesota, Michigan and Yale, has been passed by the Senate the effect of which would be to abolish the requirement that in order to be eligible for admission as a teacher under the non-quota law the applicant must have taught for two years in a foreign country next preceding the application, and to substitute therefor the evidence of an actual contract with an American college, academy, seminary or university approved by the Secretary of Labor. The greater elasticity seems desirable, but the fact that the bill was referred only to the Committee on Immigration and not to the Committee on Education, and that it places the matter of contracts with foreign teachers entirely in the

hands of the Department of Labor, is another illustration of how the Federal Government, reluctant to create a Department of Education, goes haphazardly along calling upon the Secretaries of War, Navy and the Interior, the Postmaster General, the Secretaries of Agriculture, Commerce and Labor, Boards, Bureaus, Councils and Committees, each in turn to lend a hand as Secretary of Education *pro tem* or *ad hoc*, and so render confusion worse confounded.

Perhaps all this but illustrates the truth of John Dewey's words in his recent address, "Education is the most complex, intricate and subtle of all human enterprises." But Dewey encourages us to hope for better things by adding: "The idea that education is a field of study, observation, experiment, and inquiry has been already demonstrated. It remains not only to continue the development of all the special investigations incident to this fact, but to bring the public to the appreciation of its full significance, to make its force felt in every aspect and phase of educational endeavor."

JOHN H. MACCRACKEN,
Chairman.

A Study of Examinations in Graduate Courses in Education

THIS study is concerned with a statistical and critical survey of the course examinations given during the first six years of the Graduate School of Education of Harvard University. It is a fair assumption that the teachers in a school of education will possess exceptional clarity of aim in the setting of examinations, and will exemplify such superiority of method as will prove helpful to teachers in other departments and other institutions. What, then, are the characteristics of the examinations written by the instructors in this school, and what may be learned from a study of them?

The Place and Value of Examinations.—From the standpoint of the instructor the final examination is at one and the same time a necessary part of the education of the student, and a convenient tool for measuring his ability in the course. From the standpoint of the student the examination and the preparation therefor give him the opportunity, first, to organize the subject matter and the method of the course into a body of thought which seems to him coherent and related to his mental world; second, to think systematically about the application of the principles of the course to his own cultural and professional needs; and third, to practice, during the examination itself, the recording of productive thought on important topics in the field of study. Not infrequently students in the School of Education have later made effective professional use of ideas which have unfolded to them during the period of an examination.

Relation of Examinations to Courses.—The naive view of an examination is that the professor, having planned and delivered his course, writes at the end thereof an examination based on the course. Doubtless this view is too easy an explanation. Historically, examinations often preceded and led to lectures, instead of the reverse. The magazine *Punch* expresses the intimacy of the relationship, but pro-

fesses doubt on causation: "Having touched upon the question of Military Lectures it is essential that I should deal with Military Examinations, for the one would be of no consequence without the other. Indeed it is questionable which were introduced first, which are the cause and which the effect, which the hen and which the egg." One university president showed no hesitation in stating that the examination is important because it determines what shall be put into the course!

Whatever may be the truth in the courses given and the examinations set by the reader of this report, the students' measure of the course is very likely to be the examination. He knows that "the examination counts," and he definitely prepares for it.

Other Measures.—But do instructors count so much on the examination? About half of the final mark, it appears, is built up from the result of the final examination; this seems to be the general practice at the Harvard School of Education. What are the other measures that weigh in the scale? Following are the replies of instructors to a questionnaire relating to the other measures of student ability:

MEASURES OF ABILITY, IN ADDITION TO FINAL EXAMINATIONS

Note: All "systematic" or expository courses use the final examination; only those are included in this study, seminary and individual research courses being omitted. Figures in this table indicate the number of instructors reporting each item, counting only once courses given after identical methods by the same instructor.

Hour examinations during the course: one examination, 10; two examinations, 2.

Shorter tests, 1 (four tests).

Of these examinations some are "new form" (see below): on the subject-matter of the course, 5; on required readings, 4; on application of the course, 2.

A long thesis, 14.

Several short papers, 14 (about three as an average).

Reports on school visits, 4.

Preparation of bibliography, 3.

Outline or brief, 4.

Conferences, 13.

Oral quizzes, 4.

Discussion, 16.

How the required reading is checked; cards or reviews handed in, 6; class examinations, 2; class discussions, 5; inspection of notes, 2; questions in final examination, 12.

When the "new form" is used as part of final examination, what part of the total examination mark depends on it? About one-third, 2; about two-thirds, 1; all, 1.

What fraction of the student's mark in the course is derived from his mark in the final examination? About one-fourth, 2; about one-third, 3; about one-half, 8.

On the last question, naturally enough, exact fractions seem objectionable. One instructor states that, though it is probably heresy for a teacher of statistics not to be mathematical in making up his grades, he does not follow any plan of weighting parts of the work. With four or five marks for each individual in his record book, and with much acquaintance with individuals, he decides what grade best represents the level of the individual's efforts. A second instructor states perhaps the usual policy: "My final rating is an expression of a generalized judgment into which enter (1) personal estimates of seriousness, ability, application, etc., derived from personal contacts in class, conference, and casually; (2) thesis; (3) reports on readings; and (4) final examination."

To the above list of measures should now be added reports on and discussion of cases and problems, which is assuming a larger share of attention in several classes.

The Number of Questions in Each Examination.—Resourcefulness is a major quality needed by the student who takes an examination. One student was much confused when he found himself required to answer seventeen questions when he had expected five or six. Yet the test with seventeen, at least if the character of the questions be the same, is likely to be the fairer one. Much philosophizing might use this problem of the right number of questions as its starting point, but we shall give the facts and leave their interpretation to the reader. Following are the figures for the approximately two hundred examinations given in the school during its first six years, not counting summer schools instruction, and omitting new form examinations.

NUMBER OF QUESTIONS IN EACH EXAMINATION

Read the first line of this table as follows: A total of seven examinations contained only one question each: Two of these were in the third year, two in the fifth year, and three in the sixth year.

Number of Questions	Number of Examinations						
	Total	Yr. 1	2	3	4	5	6
One.....	7			2	0	2	3
Two.....	5	1	1	1	1	1	0
Three.....	12	3	0	4	3	0	2
Four.....	25	1	3	4	6	7	4
Five.....	29	3	8	3	6	3	6
Six.....	35	8	8	7	5	5	2
Seven.....	21	2	0	2	4	5	8
Eight.....	30	6	3	5	7	5	4
Nine.....	7			2	1	2	2
Ten.....	18			8	3	6	1
Eleven.....	2				2	0	0
Twelve.....	4		1		1	1	1
Thirteen.....	2			1	1		
Seventeen.....	1				1		

The average number will be found to be close to six, but the spread in the later years is noticeable. Following is a more compact table using the same data:

Number of Questions	Number of Examinations						
	Total	Yr. 1	2	3	4	5	6
One or two.....	12	1	1	3	1	3	3
Three or four.....	37	4	3	8	9	7	6
Five or six.....	64	11	16	10	11	8	8
Seven or eight.....	51	8	3	7	11	10	12
Nine or ten.....	25		0	10	4	8	3
Eleven or twelve.....	6		1	0	3	1	1
13, 14, or 17.....	3			1	2		

Do the Examinations Give Students a Choice of Questions?

—In the case of about one examination out of four, the instructor allowed the students to select for answer certain questions from a larger list. Often only one question could be left out; rarely three or four could be selected from a list of ten or more. Perhaps the typical case allowed six questions to be answered out of eight or nine given.

It will be noted that the instructors in certain fields of education never allow choice in their examinations, and that in one field almost all examinations allow choice. Fields differ, and in some the lines of application of the work of the course, as well as ramifications of interest, especially for experienced students, suggest differentiation appropriately reflected in the choice of questions in the examination.

It should be stated at this point that the School of Education has designated the different parts of its work or fields of study as follows: Philosophy of Education; Educational Psychology; History of Education; Educational Administration; Elementary Education; Secondary Education; Educational Measurement and Statistics; Vocational Education; Vocational and Educational Guidance; Play, Recreation and Physical Education; The Teaching of School Subjects. For these we use convenient abbreviations in the tables that follow.

NUMBER OF EXAMINATIONS ALLOWING A CHOICE OF QUESTIONS, BY FIELDS OF STUDY AND BY YEARS

Read the first line of this table as follows: a total of 23 examinations were given in the field of Philosophy of Education, and 10 of these 23 examinations, or 43 per cent, allowed a choice of questions. In the first year a total of two examinations was given, one of which allowed a choice. For the full names of other fields of study see the paragraph next above. Only the third column is in percentages.

	All Years			Yr. 1		2		3		4		5		6	
	Tot.	Ch.	% Ch.	T.	C.	T.	C.	T.	C.	T.	C.	T.	C.	T.	C.
Phil.....	23	10	43%	2	1	2	1	3	1	5	2	4	1	7	4
Psy.....	28	4	14%	4	0	5	1	5	1	5	2	4	0	5	0
Hist.....	7	1	14%	2	0	0	0	1	1	1	0	2	0	1	0
Admin.....	8	4	50%	2	2	1	0	1	0	1	1	1	0	2	1
Elem.....	18	13	72%	2	2	1	1	2	4	3	4	2	5	3	3
Sec.....	30	7	23%	4	0	5	1	2	0	7	1	5	2	7	3
Meas.....	7	0	0%	0	0	2	0	1	0	1	0	1	0	2	0
Voc. Ed.....	19	5	26%	2	2	2	2	4	0	5	0	5	0	1	1
Voc. G.....	13	12	92%	2	2	2	2	3	2	2	2	2	2	2	2
Play.....	28	0	0%	2	0	4	0	8	0	5	0	3	0	6	0
Teach.....	31	0	0%	1	0	3	0	6	0	7	0	7	0	7	0
Totals.....	212	56	26%	23	9	27	8	36	7	43	11	38	7	45	14

There is a year to year variation in these figures for which I have found no explanation; it cannot be said that there is any distinct tendency, except the tendency to variation. The curve ends about as it began. The third and fifth years seem to be the strictest years, with instructors in over half the fields denying any choice of questions.

The Character of the Examination Questions.—We shall now study more intimately the questions themselves. An investigation seems appropriate to discover just what they attempt to do. What kind or kinds of ability are they expected to test? What kind of knowledge are they supposed to elicit? Does the instructor wish to have reproduced the

facts and principles of the course; does he wish application, criticism, constructive exposition, definition, or ratiocination? Or what combination of abilities has he in mind as he writes the examination?

The writer realizes to the full that he is here upon slippery ground. How can we tell, in the case of a given question, what ability is required to answer it? Much depends upon the particular answer and the particular answerer. And are mental abilities separate things, as our act of classification seems to assume? Notwithstanding these and other patent and hidden objections and difficulties, there inheres one value in a study of types of questions; namely, a closer scrutiny of educational aims, which in turn should lead to an increasing clarity of purpose in the preparation of examinations. The desired result and the interest of the task seem sufficient to make one assume the risks involved.

Careful study of the more than fourteen hundred questions revealed three main bases of preliminary classification, as follows: (A) Questions concerned chiefly with memory and recalling; (B) Questions relating to reasoning, exposition, discussion, or argument; (C) Questions requiring use in application or original work. Again, under each of these main classifications there appeared to be sub-topics discernible; finally, eleven different groupings were developed for use in this report. They are given herewith, with illustrative examination questions under each.

CLASSIFICATION OF QUESTIONS INTO CATEGORIES USED IN THIS REPORT

A. *Questions Concerned Chiefly with Memory and Recalling*

1. Reproducing facts and principles; e.g., State the chief psychological principles which a teacher of modern languages should have constantly in mind while teaching.
2. Defining; e.g., What is a child? Make a brief but comprehensive statement of each of at least three different conceptions of the mind of a child.
3. Questions on the required reading; e.g., Make a list of five books that give especially helpful suggestions on the teaching of English in the high school. Offer a sentence or two of terse comment upon each. Omit mention of the basic text.

B. *Questions Relating to Reasoning, Exposition, Discussion, or Argument.*

4. Explaining, describing, or drawing conclusions; e.g., In what ways has so-called "General Science" met the needs of the first-year students in high school? In what ways has it failed?
5. Analyzing into principles, steps, or factors; e.g., Is the differentiation in the doll-play of boys and girls due to "original nature" or to "learning?" State the grounds of your answer.
6. Judging a policy or procedure; e.g., A high school curriculum requires eleven of its seventeen units in the languages, four of which are English, and the other seven Latin and French. Discuss this arrangement from the following standpoints: historical, cultural, practical, college preparatory.
7. Criticizing a statement; e.g., "The corporation school finds its chief rôle in teaching the detailed technique of particular businesses, . . . Instruction in technique can be given by the corporation school at less social cost than otherwise, because it rids other institutions (public schools) of a burden too long assumed." Comment on the above quotation in such a way as to reflect the point of view of the course.
8. Comparing two or three points of view; e.g., "Competitive tests in typewriting and shorthand are useless." "Nothing has done more to improve instruction in typewriting than the tests fostered by the typewriter companies." These statements indicate points of view on the general subject of competitive tests. State your position with reference to this matter in such a way as to be genuinely helpful to a superintendent of schools or to a beginning teacher of the two subjects involved.

C. *Questions Requiring Use in Application or Original Work*

9. Applying a principle; e.g., Show how the principles of the relations of lay boards of control to professional workers will determine the qualifications of members of boards of education and their duties.
10. Constructing a plan; e.g., Describe the procedure which you would adopt if you were made director of an intelligence survey of a school system in a town in which no one had heard of the I.Q. Show how and by whom the results would be interpreted and used.
11. Solving a problem or case; e.g., Suppose yourself confronted by the problem of taking charge at the beginning of the second half-year of a sophomore class in your subject, comprising about thirty boys and girls. About one-third of the pupils are preparing for college; the others will leave

school either at graduation or before the completion of their high-school course. The appearance of the class would indicate a wide range of individual differences both in ability and in social inheritance.

The previous teacher has conducted the work by the study-recitation method, using textbooks intended directly for college preparation, and adhering closely to a formal course of study prescribed for the school system. She has relied chiefly upon direct methods of control. Though the class average of accomplishment is about normal for the grade, a study of the mid-year examination papers with which the principal provides you reveals a wide range of achievement, with certain of the college-preparatory students ranking very low.

Exactly how do you plan to deal with the situation?

When the application of this list of categories to the examination questions showed several which should be listed under two heads, this policy was followed. The statistical results are given in the four tables next following, the first two tables relating to the several categories or kinds of questions distributed by years, and the second two tables relating to the categories distributed by fields of study in the school. We have not included detailed figures showing differences in the several fields by years, nor those relating to specific courses within the several fields.

Distribution of Questions by Years.—First, then, how often were the various kinds of questions used throughout the first six years of the School of Education? Our first table gives the numbers; the second the percentages.

NUMBER OF QUESTIONS UNDER EACH CATEGORY, BY YEARS¹

Note: See the explanation of the classification categories above. Read the second column as follows: In the first year 23 questions in final examinations called for memory of facts, 6 for definitions, etc.

¹If the reader should note discrepancies among the totals given in the various tables of this report, it may be said that there was some difficulty with the question of including certain examinations which seemed not to fit into the plan of the investigation, such for instance, as those given by visiting instructors. For some tables these are included, for others they are omitted, all without significance in the final results.

	Total	Yr. 1	2	3	4	5	6
Recalling:							
Facts.....	203	23	8	32	49	55	36
Definition.....	41	6	1	7	10	6	11
Reading.....	97	8	7	22	18	22	20
Reasoning:							
Explanation.....	248	40	32	55	27	48	46
Analysis.....	270	41	48	29	83	38	31
Judgment.....	119	14	16	20	21	17	31
Criticism.....	73	3	14	16	12	13	15
Comparison.....	34	8	4	2	9	6	5
Using:							
Application.....	83	19	1	24	10	15	14
Construction.....	188	19	34	23	47	40	25
Solving.....	81	8	11	19	16	15	12
Totals.....	1437	189	176	249	302	275	246

PERCENTAGES OF QUESTIONS UNDER EACH CATEGORY,
BY YEARS

	All	Yr. 1	2	3	4	5	6
Recalling:							
Facts.....	14	13	5	13	16	20	15
Definition.....	3	3	1	3	3	2	4
Reading.....	7	4	4	9	6	8	8
Reasoning:							
Explanation.....	17	22	18	22	9	17	19
Analysis.....	19	21	27	12	27	14	13
Judgment.....	8	8	9	8	7	6	13
Criticism.....	5	2	8	6	4	5	6
Comparison.....	2	4	2	1	3	2	2
Using:							
Application.....	6	10	1	10	3	5	6
Construction.....	13	9	19	9	16	15	10
Solving.....	6	4	6	8	5	5	5

It will be observed that almost two-thirds of the questions are included under four out of the eleven categories, these four being facts, explanation, analysis, and construction of a plan. These four hold their importance fairly consistently year by year, in spite of many variations among the several items. Only definition and comparison (which is perhaps only a double form of criticism) are under 5 per cent. The obvious lesson of these figures for the student is to be prepared for all the various tasks suggested by these categories. Let him merely combine the final figures into the three major groups indicated above, to see that all abilities are needed: Memory, 24 per cent; Reasoning, 51 per cent; and Use, 25 per cent.

Distribution of Questions by Fields of Study.—The next

matter of interest is to see how the several kinds of questions were called into use by the instructors in the various fields of study in the school, and to compare the figures for these fields. It should here be noted that no single instructor or even a well-defined group of instructors is represented by the figures in any field. Throughout these six years there were many changes of personnel; even specific courses within a field of study were seldom given by the same instructor throughout.

NUMBER OF QUESTIONS UNDER EACH CATEGORY, BY FIELDS OF STUDY

Note: See the explanations of the several categories and fields of study above. Read the second column as follows: In the field of philosophy of education 8 questions in final examinations called for memory of facts, 6 for definitions, etc.

	Total	Phi.	Psy.	Hls.	Adm.	Ele.	Sec.	Mea.	VE.	VG.	Pl.	Teach.
Recalling:												
Facts.....	207	8	20	44	10	22	10	5	11	4	39	34
Definition.....	41	6	7	0	0	7	4	3	5	0	7	2
Reading.....	95	19	4	0	4	15	6	4	13	1	12	17
Reasoning:												
Explanation....	259	25	37	3	11	40	30	9	26	24	23	31
Analysis.....	265	21	20	2	18	31	42	7	38	28	27	31
Judgment.....	131	14	7	1	9	13	16	2	32	10	10	17
Criticism.....	74	15	2	0	3	10	9	2	17	6	4	6
Comparison....	34	3	2	3	3	6	3	2	4	3	2	3
Using:												
Application....	87	8	9	0	10	12	2	6	8	13	8	11
Construction..	193	7	21	0	1	11	30	2	23	31	25	32
Solving.....	81	7	15	0	0	3	9	15	4	10	9	9
Totals.....	1457	133	144	53	69	170	161	57	181	130	166	193

PERCENTAGE OF QUESTIONS UNDER EACH CATEGORY, BY FIELDS OF STUDY

	All	Phi.	Psy.	Hls.	Adm.	Ele.	Sec.	Mea.	VE.	VG.	Pl.	Teach.
Recalling:												
Facts.....	14	6	14	82	14	13	6	9	6	3	24	18
Definition.....	3	5	5	0	0	4	2	5	3	0	4	1
Reading.....	7	14	3	0	6	9	4	7	7	1	7	9
Reasoning:												
Explanation....	18	19	26	6	16	23	19	16	14	18	14	16
Analysis.....	18	16	14	4	26	18	26	12	21	22	16	16
Judgment.....	9	11	5	2	13	8	10	4	18	8	6	9
Criticism.....	5	11	1	0	4	6	6	4	9	5	2	3
Comparison....	2	2	1	6	4	4	2	4	2	2	1	2
Using:												
Application....	6	6	6	0	14	7	1	11	4	10	5	5
Construction..	13	5	15	0	1	6	19	4	13	24	15	17
Solving.....	6	5	10	0	0	2	6	26	2	18	5	5

Differences in Specific Courses.—The kinds of questions used in different courses vary markedly. Consider two

courses in the field of educational psychology. In one course a great variety of questions was used, drawn from ten of our eleven categories. In another only six kinds were used. In one course in the field of the philosophy of education over 40 per cent of the 37 questions in six examinations have to do with the applications of the course; in another, only two per cent of the 49 questions. In one course on teaching methods 27 per cent of the questions relate to reasoning; in another 49 per cent. We shall comment later on the factual nature of the questions in the examinations in the history of education.

Combinations in specific examinations we have not studied, nor do we maintain that every examination should draw from several kinds of questions. That depends on the purpose of the course and of the examination. But a consideration of the various possibilities, at least through a backward glance at one's examination after it has been written, might not be amiss.

The Use of "New Form" Examinations.—Fifteen of the approximately two hundred examinations used the so-called "new form" or "objective" examination, and one of these was wholly of this form. The advantages of such examinations in the form of true-false alternatives, multiple choice, filling blanks, and the like are obvious, but the limitations appear to make them ill-adapted for comprehensive testing, if, indeed, that be the purpose of examinations. They are admirable for testing the student's memory of the facts and point of view of the course, but they can hardly test application or constructive and original abilities. Some instructors habitually give a half-hour true-false test on the subject matter of the course during one of the last few meetings, thus freeing the time of the final examination for more comprehensive testing. When fundamental issues of difficulty are presented in the course, the new form examination treads on dangerous ground if it uses these issues as test material. I have before me a true-false examination prepared by a mature student of vocational guidance. In a majority of cases, his statements raise issues so large, and the particular

circumstances would alter the cases so markedly, that no safe yes or no is possible. Furthermore, it has been found that the better student often penetrates into these multiple relationships, ponders, and, out of his own particularized original thought or experiences, answers in the way the instructor did not intend, while his more superficial classmate wins the higher score. The temptation consequently is strong, in objective examinations, to secure objectivity by avoiding statements presenting real issues and statements requiring the use of reasoning. Thus one such examination presents 83 blanks to be filled, and yields itself to the following analysis: definitions 31, reproducing facts 47, questions on the reading of the course 5. Further experiment on the graduate level, with mature students, is needed.

Questions on History.—Twenty-eight of the one hundred eighty examinations outside the specific field of history of education contained questions on the past. Three of these examinations each contained two historical questions; the other 25 contained but one each. Thus only 31 questions out of about 1,400 (omitting from consideration the examinations in the specific field of history) dealt with questions on history. Moreover, the questions in that specific field "history of education," as will be seen by reference to the tables, lie largely in the field of memory rather than reasoning or use. Out of 53 questions in eight examinations none were concerned with use, nine with reasoning, and 44 with memory.² Obviously, important educational issues are here

²Since preparing this article the writer has satisfied himself that the implied criticism does not apply to the courses given in the Harvard Graduate School of Education. Professor A. O. Norton of Wellesley College, who has given most of the work in the History of Education, states that if he stresses any one thing in his courses, it is the relation of historical facts to modern problems. He points out that it is only for the sake of accuracy and definiteness that the examination questions seem to be confined to facts. He further points out that some of the questions themselves, while not specifically calling for relationships, nevertheless imply them, and that students know that a discussion of such relationships in their answers is approved and appropriately rewarded.

presented. Is it the chief function of the teacher of the history of education to make certain that his students are well informed as to the major facts in history, and can we then be reasonably sure that these students will draw upon this store of knowledge whenever facts therein will serve to modify present and future practice? Or is such modification not the "desirable outcome" of work in the history of education? Again, should the teacher of history give the facts, and the teachers of other subjects point out the applications of these historical facts? Whatever be the truth, the examinations under study in this report do not indicate either (1) that the history of education is being taught with reference to present educational issues, or (2) that historical issues are often raised in other courses in the school. In view of recent tendencies in the secondary schools to "teach history backwards"—that is, to take present issues as a starting point—may not all teachers of education profitably study the question of connection suggested by the situation here revealed?

Questions on the Future.—A similar discussion might be appropriate on questions concerning the future. Presumably a school of education exists to help modify for the better educational practices and educational institutions. If students are taught to reason about education, will the skill therein gained transfer to their activities after they leave the university? Will they see desirable trends and promptly ally themselves therewith? Will they have the necessary power to distinguish truth from error in education and the necessary good will to act for the truth? It will be noted that 25 per cent of all the questions were concerned with use, and it may be maintained that such questions encourage and prepare for desirable attitudes leading to correct and effective action. But it may still be asked, should not the student sometimes be specifically required to turn his mind to the future, and, in a restricted field of study, try to forecast trends, so that he may be prepared for them? However one may answer these theoretical issues, only fifteen of the 1,450 questions dealt specifically with the future.

Directions to Students.—Every teacher knows that students sometimes slip on even the simplest directions, answering too few or too many questions, misunderstanding the plain meaning of words, and otherwise failing to do themselves justice. Some teachers hold that the ability to follow printed directions is one of the abilities the examination itself may legitimately test.

Beyond doubt, the element of surprise or confusion enters into many examination marks. At least one of the two hundred examinations under study had directions so complicated and involved that students must have been confused by them. Another had directions so scattered through the body of the examination itself that one hardly could feel sure of what was expected without prolonged study of the text. The examination which consisted of but one task, "Outline the major problems of this field," and the other, "Select any question or questions which will show your grasp of this subject," may or may not have been confusing. The first may lead one student to a factual repetition of the subject matter of the course and a second student to a reasoned discussion of issues. The second question is likely to lead to an even greater variety of answers. "Grasp" is an elusive thing at best; it will be hard to convince students that luck does not enter into the result, unless, indeed, they have been adequately prepared for undertaking just such a task. One student may grasp firmly a single major strand, another will reach after all the threads, with an indifferent hold on any one. Which shall have the higher mark?

The words "discuss" and "outline" are much used in examination questions, and not always accurately. Thus, in the questions, "Discuss briefly the reasons for conducting physical examinations" and "Outline briefly the origin and development of psychological testing," perhaps the simpler word "give" or "tell" would serve as well as either. Dictionaries are accommodating, but "discuss" should be reserved for a consideration of the pros and cons of a real issue, and "outline" suggests the broad sketches of a plan rather than a condensed history or abstract. Experience in

reading examination books indicates that even graduate students commonly read questions without adequate attention to the exact meaning of words; all the more reason for care in composing the questions and in giving the general and special directions for taking the examination.

Some Miscellaneous Comments.—Just as references to the history of education may well be put into examination questions, so also, if education is a coordinating agency, may references to economics, sociology, psychology, biology, philosophy, and other fields. Statistical comparisons of the several fields in the matter of these references would be invalid, since it is obvious that the influence of these outside subjects varies greatly among the several fields of education.

Another interesting problem occurs in that field of education having to do with methods of teaching English, mathematics, music, science, and other secondary school subjects. It has often been found that students who enroll in these courses are somewhat weak in the subject matter of instruction. It thus becomes a desirable procedure to devote part of the time of the course to a review of this subject matter, and this policy is reflected in the examinations. But a minimum and maximum standard for such treatment in these courses and in their examinations might with profit be worked out and agreed upon. An occasional examination deals so fully with subject matter, that there is little required on methods of teaching, and thus it may differ but little from an examination in the corresponding college department.

If the examination is an educative process (and no one can doubt it), should there not be an opportunity offered to talk over the results with the class—a *post mortem* examination, as it were? One instructor composed brief specifications for adequate answers to his examination questions, but found that very few students were interested in accepting his invitation to inspect them. Let bygones be bygones may be the usual student attitude; many of us, however, faced with the results of our teaching, have wished for one more meeting to straighten out misconceptions.

Skill, Technical Knowledge, and Wisdom.—One theory of education is that the real test of a student's work is found in that part of his study of education which he takes with him and uses in his professional effort; the skill he shows in actual educational activity is the measure of his effective study of education. Under this theory the work of the courses is usually or largely concerned with technical knowledge and wisdom about educational activities, and such knowledge and wisdom exist in order that they may be used to modify the student's activity and perfect his skill. If the theory is valid, it constitutes an argument for the use of cases in instruction and in examinations, and for much attention to questions having to do with uses: applying the work of the course, constructing plans, and solving problems. This theory bears upon our discussion above of the examinations on the history of education. If application is desired as the *ultimate* test, why not ask for it in our examinations? Mere checking the existence of wisdom or knowledge, out of relation to its use, may or may not mean anything for its future application. In the absence of data to answer one way or the other, the chances are that it might prove more worth while to encourage the transfer from theory to practice, by asking directly about it.

Well-balanced examinations should perhaps try to do several things. Three hours is sufficient to test many powers of the student. He should certainly reveal in definite fashion the technical bases of his solutions; hardly anything is more unsatisfactory than the answer which is sensible but childish in its simplicity, revealing a mind that is likely to go wrong as often as it goes right, because it does not take account of the facts and does not know the basic reasons for the statements made. The student should certainly be required to reveal wisdom; without it his knowledge will be mere sterile theory and his activity ineffective bustle. Finally, he should be asked to indicate the uses of the knowledge and the wisdom acquired in the course; without that, just as in the case of faith without works, his knowledge and wisdom may be dead.

A few of the courses given in any school of education deal directly with uses, as for example courses in psychological tests and educational measurement. Moreover, what has just been said should not be interpreted as a criticism of the examinations under study in this report, since the examination is only one of several methods used to measure the work of students.

Further Study Needed.—This relationship which exists between the final examination and the other several measures of ability requires further study, and the writer of this report hopes to present in a second paper statistical material bearing on the problem; viz, correlation coefficients among the several agencies of measurement.

In his article, "The Art of Examination," in the January, 1926, *Atlantic Monthly*, President Lowell states three distinct objects of examinations: "(1) To measure the progress of pupils; (2) as a direct means of education; (3) to set a standard for achievement." One of the advantages of a school of education which is relatively small is that the faculty may study the art of examination cooperatively; and nothing is more likely to produce a well-knit group of teachers devoted to a common aim. The Harvard School is taking advantage of this opportunity in the preparation of questions for the "general examinations" for the degree of Master of Education, and for the degree of Doctor of Education. The two tasks are quite unlike, but, in each, individual instructors propose questions, which are carefully scrutinized by a representative committee of the faculty and are then composed into a unified whole by the group. Such integration of thought has important values for the members of the faculty, and it cannot fail to improve their skill in writing examinations for ordinary courses. Thus the proximate beneficiaries, the students of the school, will profit, and through them the ultimate beneficiaries, the pupils in schools.

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Records of Usage

RECORDS of usage are the necessary foundation of all constructive action. Originally such records were mere memories in individual minds. But though such memory records are incomplete, colored by personality and not conveniently comparable, mankind has used them well in building the complex industrial order in which we now live.

As life becomes more intricate and cooperation more universal, the records of usage on which action is based necessarily become more complete, impersonal, and comparable. The accelerating material conquests of engineering, business, and finance are impossible without significant records of usage which supply stimulating facts on which the creative imagination may build.

In the field of human relations, records of usage have been made for the purpose of organizing peoples for politics and for war. Such records show how men labor and fight under orders. Social status largely determines what each does. But now men are organizing for work. Personal skill is the significant factor. What a man does determines his social and political status. Usage has changed fundamentally, and new kinds of records must be made as a basis for constructive action.

Adventures always begin here and now. To proceed rationally in developing the new human organization for work, the first step is to record current usage—What do people really do? There is need of a written record that reveals in detail what kinds of personal skills are now being used to do the world's work and how those skills are coordinated to play the game well. Such a record supplies the data for ever-increasing release of personal skills in ever-improving team play to make goods cheap and men dear.

During the past ten years considerable experience has

been had in making the kinds of records of usage that are needed as a basis for perfecting the human organization for work. A simple, practical procedure that achieves the desired results has been evolved. This can best be described by working out a single example. For this purpose, the record of usage for a Foreign Service Officer of the United States will be used. This record of usage has been developed in cooperation with the State Department. In cases like this, which treat only of the activities of a single individual, such a record of usage is generally called a "job specification."

The first step in making a record of usage for personnel purposes is to list all the activities that are characteristic of the work, identifying each by a short appropriate phrase. For example, in the case of a Foreign Service Officer:

- Protect American citizens.
- Protect American interests.
- Make political and economic reports.
- Hold consular courts in extraterritorial countries.
- Execute depositions and commissions.
- Administer relief, protection and burial of American seamen in foreign countries.
- Administer estates of American seamen.
- Enforce the laws concerning American citizenship.
- Issue passports to Americans.
- Enforce alien visa control.
- Report deaths and administer estates of deceased Americans.
- Witness and certify American marriages.
- Record and report vital statistics.

Experience has shown that such lists are most useful when each item describes activities that can be observed objectively. It will be noted that each item begins with a verb denoting action. It will also be noted that the items do not indicate what knowledge is prerequisite or what particular modes of performance are required. Therefore the list as it stands does not give the full picture that is needed to select men for foreign service or to guide them in their daily work.

In order to supply these deficiencies it has been suggested

that the list of activities be preceded by a list of prerequisites; for example, the Foreign Service Officer must know international law and understand American interests and foreign policies. It is of course clear that the Foreign Service Officer must have this information, but it has been found by experience to serve the purpose better if such requirements, which present definite conditions of action or describe essential modes of performance, are embodied in the list itself by adding phrases to the several items. Take, for example, the item, "Protect American citizens." If this item is expanded by adding "in accordance with international law," it defines simultaneously both the action and a limiting condition on which success of the action depends. The revised item would then read, "Protect American citizens in accordance with international law."

Even in this form, the item is not complete. For success in protecting Americans depends in large measure on diplomatic skill and on having a legitimate case. Therefore the item more nearly states actual conditions if, for the word "protect," the phrase "make effective representations to the authorities of foreign governments concerning the protection of" is substituted. Also the protection afforded is properly limited to "rights and property." Hence a correct and adequate statement for this item is:

Make effective representations to the authorities of foreign governments concerning the protection of American citizens, their rights and their property, in accordance with international law.

As a second example of this type of expansion of the several items consider the following:

"Make political and economic reports."

This is too large an order. Limitations must be set by denoting the purpose for which the reports are intended and by indicating that only significant facts are wanted. Both of these limitations are made clear by rewording the item to read:

Analyze and report on political and economic conditions and trends of significance in formulating the policies of the United States.

By treating each of the items in the original list in this manner the record of usage eventually takes on the form shown below. This is not submitted as a final and perfect record of usage for the work of a Foreign Service Officer but as a sample of the mode of producing a record of usage that will be a valuable guide to the State Department in selecting men for training as Foreign Service Officers and to young men who want to know if they are best qualified for foreign service and to schools that aim to train young men for foreign service.

It will be noted that in the final form the items in the record of usage have not only been expanded but have been reclassified in groups of major and minor objectives. The basis of this classification is functional activity and is so obvious as to need no further explanation.

For purposes of classification it is convenient to preface the list of items with a brief statement of the general purpose and setting of each particular occupation, as shown in the sample. Also the items themselves are called "objectives" because they set the standard of expert performance which every Foreign Service Officer seeks to achieve.

FOREIGN SERVICE OFFICER OF THE UNITED STATES

Represents United States Government abroad as diplomat, consul or special representative at conferences, congresses, et cetera.

Generally stationed in a foreign country where he has to act on own responsibility and not under immediate supervision of home authorities.

Objectives:

Promote and protect the interests of the United States and of its citizens.

Negotiate protocols, conventions and treaties, regarding international intercourse, tariffs, shipping, commerce, peace, et cetera. Make effective representations to the authorities of foreign governments concerning the protection of American citizens, their rights and their property, in accordance with international law.

Further an accurate knowledge and a friendly understanding of the United States in foreign countries and of those foreign countries in the United States.

Understand his own country and be unremitting in his endeavors to learn about and to understand deeply the foreign country in which he is stationed.

Advise and assist traveling business men and tourists.

Apply when necessary, any knowledge or experience gained in previous positions held.

Cooperate and counsel with superior officers and colleagues on all matters relating to his official duties.

Give fundamental information and instructions to colleagues and subordinates in assigning problems, investigations, duties, et cetera.

Analyze and report on political and economic conditions and trends of significance in formulating the policies of the United States.

Analyze and report on market conditions, statistics of trade, of production, of labor, et cetera, in foreign countries in so far as they are significant to merchants in the United States.

Analyze and report on crops and other agricultural, forest, fishing, and mining resources in so far as they may affect similar American interests.

Analyze and report on shipping practices, freights, charters, shipping pools, etc., as far as they affect American operators.

Report on tariffs, both laws and practices.

Report vital statistics of Americans abroad.

Reply to individual trade inquiries from American citizens.

Issue passports to American citizens, register citizens and advise on questions relating to citizenship generally.

Issue Bills of Health, make sanitary reports and supervise disinfection of merchandise.

Certify invoices of all goods shipped to the United States reporting on undervaluations for protection of revenues.

Visa alien passports under immigration laws.

Enter and clear American ships, administer relief of seamen, sign on and discharge seamen, settle disputes between masters and seamen, take charge of shipwrecked vessels.

Assist in prevention of importation of prohibited articles under prohibition and anti-narcotic laws.

Administer regulations relating to plant and animal quarantine. Take custody of estates of deceased American citizens and sailors.

Handle extradition cases.

Witness marriages, where one or both of the participants is an American citizen, in accordance with Federal and State laws.

Perform notarial services in accordance with Federal and State laws.

Administer an office.

Apportion responsibility and work among personnel, report on personnel.

Organize files of correspondence received and sent.

Estimate needs of office and plan outlays for present and future activities (Budget).

Receive, care, and account for public property in accordance with government regulations.

Collect and properly account for fees for services rendered under law.

Disburse funds received from the Treasury of the United States for salaries, wages, contingent supplies, make up various returns and accounts, and remit surplus funds to Treasury.

The foregoing is a sample of a record of usage for one individual occupation. The same form is effective for recording the practices of groups or of entire corporations. From the foregoing it appears that a record of usage may be thus defined:

A record of usage is an accurate list of the essential actions and modes of performance of an expert when successfully achieving a particular purpose.

Experience is making it clear that a record of usage like the foregoing sample is the basic need for wise selection, vocational guidance, or construction of educational courses. To many it may appear incomplete because it does not call for ratings on personal traits and character. Experience is, however, showing that such ratings are not necessary for adequately describing the limiting conditions and modes of performance that are essential to success. If such limiting conditions and modes of performance are properly incorporated in the body of the specification, then anyone who successfully does the things specified has the proper personal qualifications. The question of personality may arise when an individual has to work closely with a group. In such cases personal ratings may be useful; but even so it makes for better ultimate results if such ratings are not mixed up with the record of usage and the personal equation is treated as a wholly separate matter.

The need for records of usage, or job specifications, of this type is steadily increasing in business and industrial organ-

izations, on the one hand, and in educational institutions on the other. The social organization is changing rapidly. Professional, political, business and educational practices are in a state of constant flux in an effort to keep up with the changing times. Such records of usage constitute the ground map of the present situation, making it possible to see clearly where changes are needed. These necessary changes can then be made with full knowledge of their effect on the organization as a whole.

A record of usage, properly drawn in the form herewith presented, contains all the information needed as a sound basis for organizing men for work. If business and the professions write their records of usage approximately in this form, the data from different occupations are comparable. Then these records also give educational institutions the basic facts they need to discover what activities and modes of procedure are common to many phases of the world's work. When schools know what these fundamental common elements of human action are, they can release the corresponding personal skills in youth and stimulate constructive thinking about a world that is now organizing for work. This is the kind of school product America must have if it is to achieve the mission to which it is dedicated.

C. R. MANN.

Achievement Tests

THE Committee on Personnel Methods awaiting the completion of its study of available achievement tests, calls attention to standardized tests suited to the uses of secondary schools and colleges.

In the following list an asterisk preceding a title indicates that the test named is a revision of one used in the Pennsylvania survey in the spring of 1928. Since all data from the survey are not available, only tentative norms are furnished. The publishers of these tests will appreciate the return to them of the Report to Author which is attached to the Class Record. In return the publishers will furnish the results of the data received to those who cooperate.

Except No. 1 and No. 25 all tests are put up in packages of 25 test booklets, a teachers' Manual of Directions giving complete instructions for administering and scoring, a Scoring Key and Class Record. The prices per package are net F.O.B. publishers' shipping point. Orders for all except Nos. 1 and 25 must be for unbroken packages.

Orders for No. 1 should be addressed to the American Council on Education, 26 Jackson Place, Washington, D. C.

Orders for No. 25 should be addressed to Stanford University Press, Stanford University, California.

Orders for all the others should be sent to the World Book Company, Yonkers, New York.

1. AMERICAN COUNCIL ON EDUCATION PSYCHOLOGICAL EXAMINATION, 1928 edition, by L. L. Thurstone and Thelma Gwinn Thurstone, American Council on Education, 26 Jackson Place, Washington, D. C. Price: \$9.00 for 100 copies of the examination.

Description: The five parts of this test are printed in an eight-page booklet and require one hour for giving: Completion, 10 minutes; Artificial Language, 11 minutes; Analogies (by Lewis O. Anderson, University of North Dakota), 12 minutes; Arithmetic, 20 minutes; Opposites, 7 minutes.

2. AMERICAN COUNCIL ALPHA FRENCH TEST, by V. A. C. Henmon,

A. Coleman and M. R. Trabue. World Book Company, Yonkers, New York. Price: \$1.25 for 25 of each part.

Forms and Years: Two forms each of two parts for all four years of French study.

Time: 40 minutes for Part I; 40 minutes for Part II.

Description: The test is in two parts, each part being printed in a separate booklet. Part I contains a test in vocabulary and a test in grammar. The vocabulary test consists of 75 French words each followed by five English meanings, the pupil to select the correct meaning. The grammar test consists of 14 parts with 50 items. Part II contains a test in silent reading and one in composition. The reading test consists of seven French paragraphs, each followed by several French questions on the paragraph to be answered in English. The composition test calls for a composition based on a picture given in the test booklet.

3. AMERICAN COUNCIL ALPHA GERMAN TEST, by V. A. C. Henmon, B. O. Morgan, S. M. Hinz, C. M. Purin and E. Rossberg. World Book Company, Yonkers, New York. Price: \$1.25 for 25 of each part.

Forms and Years: Two forms each of two parts for all four years of German study.

Time: Part I, 45 minutes; Part II, 40 minutes.

Description: Part I contains two tests. The first is a vocabulary test containing 100 German words with five English meanings for each; the pupil is to indicate the one of the five that is correct. The second is a grammar test made up of 50 sentences with five translations for each, of which the pupil is to indicate the correct one. Part II contains two tests, the first calling for a composition based on a picture given in the test booklet, the second a test of silent reading containing seven German reading selections, each followed by several questions in German on the selection to be answered in English.

4. AMERICAN COUNCIL ON EDUCATION. GERMAN READING SCALES, by M. J. Van Wagenen and S. H. Patterson. Public School Publishing Company, Bloomington, Illinois. Price: \$.75 for package of 25.

Forms and Years: One form each of Division 1 for first and second years and of Division 2 for the second and third years.

Time: 50 minutes.

Description: The test includes a series of German paragraphs each followed by questions. It tests the student's ability to understand German paragraphs given in the Scales.

5. AMERICAN COUNCIL ALPHA SPANISH TEST, by M. A. Buchanan, J. P. W. Crawford, H. Keniston and V. A. C. Henmon. World Book Company, Yonkers, New York. Price: \$1.25 for 25 of each part.

Forms and Years: Two forms each of two parts for all four years of Spanish study.

Time: Part I, 37 minutes; Part II, 40 minutes.

Description: The test is in two parts, each part being printed in a separate booklet. Part I contains a test in vocabulary and a test in grammar. The vocabulary test consists of 75 Spanish words each followed by five English meanings, the pupil to select the correct meaning. The grammar test consists of 14 parts with 50 items. Part II consists of a test in silent reading and one in composition. The reading test consists of seven Spanish paragraphs, each followed by several Spanish questions on the paragraph to be answered in English. The composition test calls for a composition based on a picture given in the test booklet.

6. *AMERICAN COUNCIL CIVICS AND GOVERNMENT TEST, by R. D. Leigh, J. D. McGoldrick, P. H. Odegard, and B. D. Wood. World Book Company, Yonkers, New York. Price: \$1.50 for package of 25.

Forms and Years: Two forms for high school and college. (Form A now available; Form B in preparation).

Time: 90 minutes.

Description: The test is in four parts. Part I contains 108 true-false statements. Part II contains 13 groups of items to be matched, with 65 items in all. Part III contains 24 multiple choice questions, and Part IV, 25 short answer questions. The test covers the subject comprehensively and includes questions on both facts and relationships in Civics and Government.

7. *AMERICAN COUNCIL ECONOMICS TEST, by H. Taylor, T. N. Barrows and B. D. Wood. World Book Company, Yonkers, New York. Price: \$1.30 for package of 25.

Forms and Years: Two forms for high school and college. (Form A now available; Form B in preparation).

Time: 90 minutes.

Description: The test is in three parts. Part I contains 90 true-false statements. Part II contains 12 groups of items to be matched, with 60 items in all. Part III contains 25 multiple choice questions. The test covers the subject comprehensively and includes questions on both facts and relationships in Economics.

8. *AMERICAN COUNCIL EUROPEAN HISTORY TEST, by H. J. Carman, W. C. Langsam and B. D. Wood. World Book Company, Yonkers, New York. Price: \$1.50 for package of 25.

Forms and Years: Two forms for high school and college. (Form A now available; Form B in preparation).

Time: 90 minutes.

Description: This test has four parts. Part I contains 70 true-false statements. Part II contains 10 groups of items to be matched with 50 items in all. Part III contains 45 multiple choice questions, and Part IV, 20 short answer questions. The test covers the subject comprehensively and includes questions on both facts and relationships in European History.

9. *AMERICAN COUNCIL SOLID GEOMETRY TEST, by H. W. Raudenbush, L. P. Siceloff, and B. D. Wood. World Book Company, Yonkers, New York. Price: \$1.25 for package of 25.

Forms and Years: Two forms for high school and college. (Form A now available; Form B in preparation.)

Time: 60 minutes.

Description: This test is in two parts. Part I contains 92 true-false statements concerning facts and relationships in solid geometry. Part II contains 28 problems.

10. *AMERICAN COUNCIL TRIGONOMETRY TEST, by H. W. Raudenbush, L. P. Siceloff and B. D. Wood. World Book Company, Yonkers, New York. Price: \$1.25 for package of 25.

Forms and Years: Two forms for high school and college. (Form A now available; Form B in preparation.)

Time: 60 minutes.

Description: This test is in two parts. Part I contains 92 true-false statements concerning facts and relationships in solid geometry. Part II contains 28 problems.

11. COLUMBIA RESEARCH BUREAU ALGEBRA TEST, by A. S. Otis and B. D. Wood. World Book Company, Yonkers, New York. Price: \$1.30 for package of 25.

Forms: A and B.

Time: Thirty minutes for each of the two parts.

Description: The test covers a year's work in algebra. It has two parts. The first part contains 20 equations the solution of which involves many of the mechanical phases of algebra. The second part consists of 20 problems and graphs.

12. COLUMBIA RESEARCH BUREAU AMERICAN HISTORY TEST, by H. J. Carman, T. N. Barrows and B. D. Wood. World Book Company, Yonkers, New York. Price: \$1.50 for package of 25.

Forms and Years: Two forms for high school and college.

Time: 120 minutes.

Description: The test is in four parts. Part I contains 80 true-false statements. Part II contains 8 groups of items to be matched with 50 items in all. Part III contains 50 multiple choice questions, and Part IV, 20 short answer questions. The test covers the subject comprehensively and includes questions on both facts and relationships in American History.

13. COLUMBIA RESEARCH BUREAU ENGLISH TEST, by H. R. Stevens, A. Abbott and B. D. Wood. World Book Company, Yonkers, New York. Price: \$1.50 for package of 25.

Forms and Years: Forms A and B for high school and college.

Time: Two hours.

Description: This test has four parts (1) Spelling 40 words—to choose the one of four given ways which is the correct spelling of each

word; (2) Mechanics—a paragraph in which corrections are to be made; (3) Vocabulary, 100 words—multiple choice type, four choices for each word; (4) Literary knowledge, 100 items of the multiple choice type, four choices for each item.

14. COLUMBIA RESEARCH BUREAU FRENCH TEST, by A. A. Meras, Suzanne Roth and B. D. Wood. World Book Company, Yonkers, New York. Price: \$1.30 for package of 25.

Forms and Years: Two forms for second, third and fourth years of French study.

Time: 90 minutes.

Description: The test has three parts. Part I is a vocabulary test containing 100 French words each followed by 5 English meanings of which the pupil is to indicate the correct one. Part II is a comprehension test containing 75 French statements following each of which the pupil is to indicate whether it is true or false. Part III is a grammar test containing 100 English sentences with the French translation of each. One word or phrase of the translation is omitted, which the pupil is to supply.

15. COLUMBIA RESEARCH BUREAU GERMAN TEST, by C. M. Purin and B. D. Wood. World Book Company, Yonkers, New York. Price: \$1.30 for package of 25.

Forms and Years: Two forms for all four years of German study.

Time: 90 minutes.

Description: The test has three parts. Part I is a vocabulary test containing 100 German words each followed by 5 English meanings of which the pupil is to indicate the correct one. Part II is a comprehension test containing 75 German statements, following each of which the pupil is to indicate whether it is true or false. Part III is a grammar test containing 100 English sentences with the German translation of each. One word or phrase of the translation is omitted, which the pupil is to supply.

16. COLUMBIA RESEARCH BUREAU PHYSICS TEST, by H. W. Farwell and B. D. Wood. World Book Company, Yonkers, New York. Price: \$1.30 for package of 25.

Forms: Two forms, A and D.

Time: 75 minutes.

Description: The test consists of 144 true-false questions, both informational and reasoning.

17. COLUMBIA RESEARCH BUREAU PLANE GEOMETRY TEST, by H. E. Hawkes and B. D. Wood. World Book Company, Yonkers, New York. Price: \$1.20 for package of 25.

Forms: A and B.

Time: 60 minutes.

Description: The test has two parts. Part I contains 65 true-false statements on geometrical facts. Part II contains 35 problems.

18. COLUMBIA RESEARCH BUREAU SPANISH TEST, by F. Callcott and B. D. Wood. World Book Company, Yonkers, New York. Price: \$1.30 for package of 25.

Forms and Years: Two forms for second, third, and fourth years of Spanish study.

Time: 90 minutes.

Description: The test has three parts. Part I is a vocabulary test containing 100 Spanish words each followed by 5 English meanings of which the pupil is to indicate the correct one. Part II is a comprehension test containing 75 Spanish statements, following each of which the pupil is to indicate whether it is true or false. Part III is a grammar test containing 100 English sentences with the Spanish translation of each. One word or phrase of the translation is omitted, which the pupil is to supply.

19. CROSS ENGLISH TEST, by E. A. Cross. World Book Company, Yonkers, New York. Price: \$1.20 for package of 25.

Forms and Years: Forms A, B and C for high school and first year college.

Time: 45 minutes.

Description: The test consists of the following:

1. Spelling in which 32 pairs of words are given, the one correctly spelled to be checked.

2. Pronunciation in which 32 words are given with two pronunciations in code (the code being explained) the correct pronunciation to be checked.

3. Sentence recognition.

4. Punctuation.

5. Verb forms.

6. Pronoun forms.

7. Idiomatic expressions.

8. Miscellaneous faulty expressions.

20. OTIS GROUP INTELLIGENCE SCALE, by A. S. Otis, World Book Company, Yonkers, New York. Price: \$1.25 for package of 25.

Forms and Years: Two forms for grade 5 up to adult level.

Time: 45 minutes for the test proper (about 60 minutes in all).

Description: The test is in ten parts each part testing a different phase of mental ability—ability to follow directions, recognition of opposites, organization of written thought, matching meanings, arithmetical problems, special relationships, analogies, similarities, completion, memory.

21. POWERS GENERAL CHEMISTRY TEST, by S. R. Powers. World Book Company, Yonkers, New York. Price: \$1.10 for package of 25.

Forms and Years: Two forms for high school chemistry.

Time: 35 minutes.

Description: The test is in two parts. Part I contains 30 multiple

choice questions that test range of information. Part II contains 27 problems.

22. RUCH-COSSMAN BIOLOGY TEST, by G. M. Ruch and L. H. Cossman, World Book Company, Yonkers, New York. Price: \$1.30 for package of 25.

Forms: Forms A and B.

Time: 38 minutes.

Description: Part I of the test contains 40 multiple choice items of information. Part II contains 18 multiple choice reasoning questions. Part III contains 15 items which are to be matched with numbered items in pictures. Part IV contains a problem on the subject of the Mendelian Inheritance. Part V contains 5 problems in the forms of completion paragraphs. Norms are available at the end of the year.

23. RUCH-POPENOE GENERAL SCIENCE TEST, by G. M. Ruch and H. F. Popenoe, World Book Company, Yonkers, New York. Price: \$1.30 for package of 25.

Forms: Forms A and B.

Time: 40 minutes.

Description: The test consists of Part I, containing 50 multiple choice information questions; and Part II, containing 20 problems each referring to a picture or diagram.

24. Terman Group Test of Mental Ability, by L. M. Terman, World Book Company, Yonkers, New York. Price: \$1.20 for package of 25.

Forms and Years: Two forms from grade 7 up to adult level.

Time: 27 minutes for the test proper (about 35 minutes in all).

Description: The test is in 10 parts, each testing one measure of mental ability—information, selection of best answer, similarity and opposite, logical selection, arithmetical problems, sentence meaning, analogies, organization, classification, number series.

25. STRONG VOCATIONAL INTEREST BLANK, by E. K. Strong, Jr. Stanford University Press, Stanford University, California. Price: 25 copies for \$2.00; 100 copies, \$6.00; 500 or more, \$5.00 a hundred.

Scales for following occupations now available: Advertiser, Architect, Certified Public Accountant, Chemist, Engineer, Journalist (Newspaper Editor), Lawyer, Minister, Psychologist and School Teacher and Administrator. Price: \$1.00 each.

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